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# Evaluating The Effectiveness Of Professional Development

Christine Scheffert Lowden  
*Seton Hall University*

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EVALUATING THE EFFECTIVENESS OF PROFESSIONAL DEVELOPMENT

BY

CHRISTINE SCHEFFERT LOWDEN

Dissertation Committee

Mary Ruzicka, Ph.D., Mentor

James Caulfield, Ed.D.

Lucy DiPaola, Ph.D.

Joan Miller, Ph.D.

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## ABSTRACT

### EVALUATING THE EFFECTIVENESS OF PROFESSIONAL DEVELOPMENT

Effective professional development is considered to be the center of educational reform (Dilworth & Imig, 1995). It is an area about which little known, with only a few studies that document its impact, cost and effect. Policy makers, boards of education, legislators, funding agencies and taxpayers all want to know if professional development makes a difference (Guskey, 1994). Evaluations of professional development programs in school districts are important to the improvement of teacher performance and student learning. However, many evaluations of professional development only assess the participants' satisfaction and/or their opinions of their professional development experiences.

Evaluations must look at how to better understand the influence of professional development on teachers and document its impact on student learning. Guskey (2000,2002) suggests a model for evaluating professional development. The model includes five levels of gathering information about professional development and it is hierarchically arranged from simple to complex.

The purpose of this study was to determine the impact of professional development using Guskey's (2000, 2002) models of teacher change and evaluating professional development

Quantitative research methodology was used to conduct an evaluation of professional development in K-12 public

schools. A survey was designed, based on the literature, to include Guskey's five critical levels of professional development evaluation and the model of teacher change. Two hundred five teachers, representing eleven schools, volunteered to participate in the research study and returned a completed survey by mail to the researcher.

This study confirmed other research studies and the professional literature indicating that effective professional development is critical for teacher growth and student achievement. The results of this study also support the research literature indicating the importance of setting clear goals and planning professional development that aligns to the vision and the needs of the school district. One of the most significant findings of this study was the strong correlation between teachers' implementation of new knowledge and skills in the classroom and the impact on student learning outcomes.

The results of this investigation have broad based implications for all educators involved in professional development. Recommendations and implications for policy and practice are included.

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## CHAPTER 1

### INTRODUCTION

#### General Background for the Study

Effective professional development is a necessary component in all educational improvement efforts. Every proposal to reform, restructure or transform education emphasizes the role of the classroom teacher as the main conduit in efforts to bring about needed change. For example, commencing in 2004, New York State Department of Education has mandated 175 hours of professional development for teachers over a period of five years. Many other states have similar mandates as part of their educational reform initiatives. A growing body of research indicates that improving teacher knowledge and teaching skills is essential to raising student performance. (Sparks & Hirsh, 2000). With this increased emphasis on teacher performance comes heightened awareness about the quality and effectiveness of professional development in being able to facilitate systemic change in education (Guskey, 1998, 2000). To meet the goals of reform including standards, assessments, and accountability, teachers must make changes that involve much more than learning new teaching techniques. The changes form the core of what it means to teach and learn.

Unless educators take a thoughtful and strategic 'systems approach' to reform efforts, the results will be little or no improvement. Educational change must be based on problem solving and the comprehensive planning processes. Professional development must shift its emphasis from working on teachers to working with teachers toward improvement of teaching and learning for all students (Cook & Fine, 1996, p.3).

Educators face enormous challenges. Teachers need skills and ongoing professional development to keep up with the changes in society. According to Linda Darling-Hammond (1998):

In response to an increasingly complex society and a rapidly changing, technology-based economy, schools are being asked to educate the most diverse student body in our history to higher academic standards than ever before. This task is one that cannot be 'teacher-proofed' through management systems, testing mandates, or curriculum packages. At its root, achieving high level of student understanding requires immensely skillful teaching - and schools that are organized to support teachers' continuous learning (p. 8).

There is no question that effective professional development is necessary for all teachers. According to the literature, in order for professional development to be effective, it must have certain characteristics. Darling-Hammond (1996, 1998), Miller (1998), Sparks and Loucks-Horsely (1989), Sparks and Hirsh (2000), Guskey (1995), Hawley and Valli (1996), Ferraro (2000), Little (1993), and Abdal-Haqq (1991, 1996) all agree that there are several characteristics of effective professional development. It should be:

1. experiential
2. grounded in inquiry and research
3. collaborative
4. connected to and derived from teachers' work
5. sustained and intensive
6. provided on-site
7. connected to other aspects of school change and organizational improvement
8. reflective
9. data driven
10. focused on meeting teachers' needs
11. aligned with initiatives to develop further expertise in:
  - a) subject content
  - b) use of technology
  - c) teaching strategies and other essential elements in teaching to high standards

12. evaluated based on its impact on teacher effectiveness and student learning

Since effective professional development is so critical and it is the center of educational reform, its impact needs to be studied. Dilworth and Imig (1995) state that professional development is an aspect of school reform that is receiving vast attention. It is also an area about which amazingly little is known, with only a few studies that document its provision, costs and effect. There are demands for demonstrating and justifying the results of professional development efforts. Legislators, policy makers, funding agencies, and the general public all want to know if professional development programs really make a difference (Guskey, 1998). Evaluations of professional development programs/plans in school districts are essential to the improvement of teacher knowledge, skill, instructional pedagogy and student achievement.

#### Statement of the Problem

It has been established that professional development is essential for educational reform, however, researchers have tried to determine the true impact of professional development and how it influences student achievement, but have met with little success. Research does not demonstrate the true impact of professional development on student achievement. According to Thomas Guskey (2000), there is little systemic inquiry into the process of

professional development and its effects on teaching practices on a broad level. Past evaluations of professional development have been inadequate. There are three reasons why past efforts to identify the characteristics of effective professional development have not given more definitive answers: (1) confusion about the criteria of effectiveness, (2) the misguided search for main effects, and (3) the neglect of quality issues (Guskey, 1997).

Due to educational reform initiatives, the interest in evaluating professional development has grown, but educator/practitioners have not spent time on professional development evaluation. "Traditionally, educators haven't paid much attention to evaluating their professional development efforts" (Guskey, 2002, p. 45). Many consider evaluation to be time consuming, costly, and unproductive. Others feel that they do not have the skills and expertise necessary to effectively evaluate their program and as a result neglect the process completely.

For the purposes of this study, the following problem statement was considered: What is the perception of classroom teachers in two selected school districts concerning the effectiveness of professional development based on the following six criteria:

1. participant satisfaction
2. participant learning
3. organizational support and change

4. implementation of teachers' new knowledge, skills, and instructional pedagogy
  5. teacher perception of student learning
  6. changes in attitudes and beliefs of teachers
- and is there a relationship between this perception and selected school variables? School variables in this study include: professional development format, process, and content.

#### Theoretical Rationale

In his book, *Evaluating Professional Development*, Thomas Guskey (2000), states that professional development evaluation should focus on measuring its impact in terms of change in the knowledge, skills, attitudes and beliefs of teacher participants. In order for staff development to have an impact on students, Guskey suggests that it must first have an impact on the teachers who participate. This concept is supported by others in the field. According to the National Staff Development Council (2001), "Staff development is the means by which educators acquire or enhance the knowledge, skills, attitudes, and beliefs necessary to create high levels of learning for all students" (p. 2).

Guskey (2000) posits that many professional development efforts fail because they lack focused planning, are unrelated to the daily lives of the teacher and thereby do not affect instructional practice. Therefore, well-designed, thoughtfully planned and adequately supported



professional development is a necessary ingredient in all educational improvement efforts. Guskey also says that professional development programs do not take into account what motivates teachers nor do they attempt to delineate the process of teacher change. Professional development programs that focus on changing teachers' attitudes and beliefs presume that it will result in a change of instructional practice and pedagogy leading to the improvement of student learning.

Guskey (2000) suggests a Model of Teacher Change. He proposes that teachers are more likely to change their attitudes and beliefs once they see evidence of positive student achievement. "The crucial point is that it is not the professional development per se, but the experience of successful implementation that changes their attitudes and beliefs" (Guskey, 2000, p. 139). Professional development effects a change in classroom practice which results in observed positive changes in student learning which results in a change in teacher attitudes and beliefs.

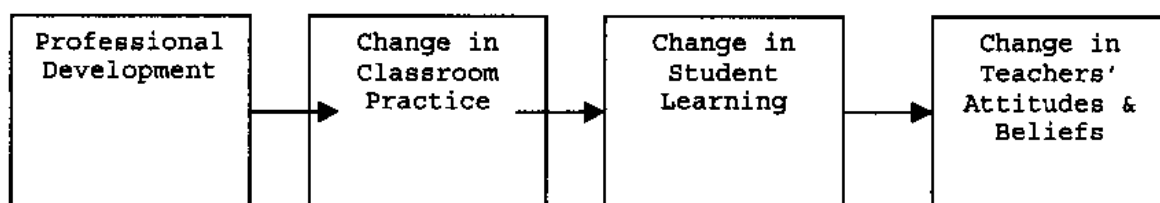


Figure 1. Guskey's Model of Teacher Change

Thus, according to the model, Guskey believes that this process is more cyclical than linear. Changes in attitudes and beliefs are likely to spur additional changes in practice that bring further change in student learning, and so on. Teachers rarely become committed to a new instructional approach or innovation until they have seen it work in their classrooms with their pupils.

Evaluations must look at how to better understand the influence of professional development on teachers and document its impact on student learning. Guskey (2000) also suggests a model for evaluating professional development. The model includes five levels of gathering information about professional development and it is hierarchically arranged from simple to complex. The levels are illustrated in Table 1.

Table 1  
Five Critical Levels of Professional Development Evaluation

Evaluation level	What Questions are addressed	How to gather the information	What is measured or assessed	How will the information be used?
1. Participants reactions	Did they like it? Was their time well spent? Did the material make sense? Will it be useful? Was the leader knowledgeable and helpful? Were the refreshments fresh and tasty? Was the room the right temperature? Were the chairs comfortable?	Questionnaires Focus groups Interviews Personal learning logs	Initial satisfaction with the experience	To improve program design and delivery
2. Participants learning	Did participants acquire the intended knowledge and skills?	Paper and pencil instruments Simulations and demonstrations Participants reflections (oral and/or written) Participant portfolios Case study analyses	New knowledge and skills of participants	To improve program content, format, and organization
3. Organization support and change	What was the impact on the organization? Did it affect organizational climate and procedures? Was implementation advocated, facilitated and supported? Was the support public and overt? Were problems addressed quickly and efficiently? Were sufficient resources made available? Were success recognized and shared?	District and school records Minutes from follow-up meetings Questionnaires Focus groups Structured interviews with participants and school district administrators Participant portfolios	The organizations advocacy, support, accommodations facilitation, and recognition	To document and improve organization-al support To inform future change efforts

4. Participants use of new knowledge and skills	Did participants effectively apply the new knowledge and skills?	Questionnaires Structured interviews with participants and their supervisors Participant reflections Participant portfolios Direct observations Video or audio tapes	Degree and quality of implementation	To document and improve the implemen- tation of program content
5. Student learning outcomes	What was the impact on students? Did it affect student performance or achievement? Did it influence students' physical or emotional well- being? Are students more confident as learners? Is student attendance improving? Are dropouts decreasing?	Student records School records Questionnaires Structured interviews with students, parents, teachers and/or administrators Participant portfolios	Student learning outcomes:  Cognitive Affective psychomotor	To focus and improve all aspects of the program design, implemen- tation and follow-up To demonstrate the overall impact of professional development

### Purpose of the Study

The purpose of this study was to determine the impact of professional development using Guskey's (2000, 2002) models of teacher change and evaluating professional development in two selected school districts based on the following six criteria:

1. participant satisfaction
2. participant learning
3. the organization's support and change
4. change in teacher knowledge, skills, and instructional pedagogy
5. teacher perception of student learning
6. changes in attitudes and beliefs of teachers

Various school variables including: professional development process, professional development format, and professional development content were also investigated.

The results of this study present evaluative information to the participating school districts depicting their current professional development practices.

Recommendations are made in Chapter V. These have broad based implications which can be generalized for other school districts.

### Significance of the Study

Educational reform movements concentrate on improving student achievement. Student achievement will increase if teachers change their instructional practices and instructional practices will change through professional development. In order for change to endure, teachers must become committed to new practices in education, therefore, a change in teachers' attitudes and beliefs is essential.

This study reflects the educational reform initiatives set forth in President Bush's U.S. Department of Education Plan, called *No Child Left Behind*. The United States is spending billions of dollars on educational reform; a major part of which is targeted to professional development (\$3,175,000,000 for fiscal year 2002). The *No Child Left Behind* Act requires every classroom in New York to have a highly-qualified teacher and provides more than \$230 million (in New York alone) to train and retain skilled educators. Research has shown that some of the various types of professional development have little effect on teacher performance.

There has been a shift from a deficit model of staff development, emphasizing remediation, to a developmental model, emphasizing growth (Abdal-Haq, 1989). Historically, teachers in public school districts have taken courses or in-service workshops to improve their skills or to learn about the latest educational trend. Generally, these professional development experiences do

not contribute to the betterment of the school as a whole and are considered mediocre at best (Darling-Hammond, 1998, Lohman & Woolf, 1998). The factory-model of urban school bureaucracies is based on the scientific management theory of Frederick Winslow Taylor. This type of environment lead professional development to be seen as a short term intervention in which the teacher would get a set of directives that would guide their work. In order to improve the mediocrity of current professional development practices, teachers need to learn to collaborate with each other. Professional development needs to be directly connected to their daily work with students, relate to content areas, address real-life problems, and be continuous and ongoing (Darling-Hammond, 1998). Outdated models of professional development such as one-shot workshops, a hodgepodge of courses, and "expert" lectures are not adequate. It is critical to understand the relationship between professional development and teacher change in order to maximize the effect on increasing student achievement and strengthening the impact of education dollars being spent.

This study evaluates the impact of professional development on classroom teachers using Guskey's (2000, 2002) models of teacher change and evaluating professional development.



### Definitions of Terms

1. Staff Development/Professional Development - the terms professional development and staff development will be used interchangeably throughout this dissertation.

"...those processes that improve the job-related knowledge, skills, or attitudes of school employees. While participants in staff development activities may include school board members, central office administrators, principals, and non-certified staff..." (Sparks & Loucks-Horsley, 1989) - this dissertation will focus on staff development for teachers. Specifically, it examines staff development that will enhance teacher performance and ultimately improve student achievement.

2. Teacher perception of professional development - (six levels)
  - a. Participant satisfaction - the level of satisfaction the participants felt about their professional development experiences in the school district in general
  - b. Participant learning - the level at which the participants acquired the intended knowledge and skills through professional development offered by the district.
  - c. Organizational support and resources - the level at which the school district shows support for professional development by allocating resources

and incentives for teachers

- d. Implementation of new knowledge, skills and instructional pedagogy - the extent to which the participants applied their new knowledge and skills in their classroom teaching.
  - e. Perception of student learning - participants perception of how their learning through professional development affected student performance or achievement of the students in their classrooms
  - f. Change in attitudes and beliefs - the ideas, judgments and values teachers have about teaching and education in general. These beliefs and attitudes impact their behavior in the classroom.
- 3. Professional development process - the design of the district professional development program and whether or not it is linked to district goals and teacher evaluation
  - 4. Professional development content - the topics of professional development offered to teachers in each of the school districts
  - 5. Professional development format - when and how the teachers are participating in professional development opportunities

### Organization of the study

This study is presented in five chapters. Chapter I includes the introduction, statement of the problem, theoretical rationale, guiding questions, significance of the study, and definition of terms. Chapter II reviews the literature pertaining to evaluating professional development. Chapter III includes a discussion of the research design and methodology, the subjects, a description of the questionnaire instrument, and an explanation of the statistical techniques used for data analysis. The findings of the study are reported in Chapter IV. Chapter V consists of the summary, conclusions and recommendations.

## CHAPTER II

### LITERATURE REVIEW

This chapter reviews the literature in the field of professional development and examines both theoretical and empirical studies. It was developed through a systematic search of the literature that relates to the purpose of the research study: an evaluation of the effectiveness of professional development. The review of the literature supports the following professional development concepts: effective professional development process, content, and format; evaluating professional development; teachers' reactions, satisfaction and perceptions of actual learning; organizational support and change; implementation of new knowledge and skills; and teacher perception of student learning.

#### Introduction

The current endeavor to reform the nation's schools seeks to expand not only new conceptions of teaching, learning, and schooling, but also a wide variety of practices that support teacher learning. Although sophistication about the process of restructuring schools and the problems of changing school cultures is growing, it

is still widely accepted that professional development takes place mainly at a series of workshops, at a conference, or with the help of a long-term consultant. According to Lieberman, (1995):

What everyone appears to want for students, a wide variety of learning opportunities that engage students in experiencing, creating, and solving real problems, using their own experiences, and working with others, is for some reason denied to teachers when they are the learners. In the traditional view of staff development, workshops and conferences conducted outside the school count, but authentic opportunities to learn from and with colleagues inside the school do not. The conventional view of staff development as a transferable package of knowledge to be distributed to teachers in bite-sized pieces needs radical thinking. It implies a limited conception of teacher learning that is out of step with current research and practice (p. 11).

Professional development of school employees and considerable changes in the organizations in which they

work are both required if schools are to sufficiently prepare students for life in a world that is becoming increasingly more complex. (Sparks & Hirsh, 1997). Staff development is at the center of all education reform strategies - without it, such strategies are merely good ideas that cannot find expression. More districts today are recognizing that they cannot educate students to high standards without well designed staff development initiatives.

#### Professional Development: Format, Content, Process

The Indiana Department of Education surveyed teachers, reviewed the research and discussed models with experts (Bull, 1998). Five characteristics of effective professional development format emerged from the study:

1. Be school based
2. Use coaching or other follow-up procedures
3. Be collaborative
4. Be embedded in the daily lives of teachers and provide for continuous growth
5. Focus on student learning and be evaluated at least in part on that basis

During the late 1970s and early 1980s, several studies were conducted on the characteristics of effective staff development, focusing on attitudes, but not on actual practices (Sparks & Loucks-Horsley, 1989). Many districts

initiated extensive staff development projects that would increase student achievement. Research on these projects contributed to the advanced understanding of effective staff development that are available today. The results of the findings on the topic of effective staff development practices include: programs that are conducted in school settings and are linked to school-wide efforts; teachers who participated in the planning of the activities and who collaborated with each other; teachers who could be self-directed in their learning and who had an active role in choosing activities; learning that is sustained and concrete; and ongoing assistance and support when needed.

Researchers Willis Hawley and Linda Valli (1996) of the University of Maryland found that once a school becomes a place for teachers to learn, it becomes a school on the way to improvement. They submit that effective continuing professional development for educators "...calls for providing collegial opportunities to learn that are linked directly to solving authentic problems that are defined by the gaps between goals for student achievement and actual student performance." Hawley and Valli identified eight characteristics of effective professional development and said that, good professional development:

1. is driven by data on the gap between learning goals and actual student performance;
2. asks teachers to identify their learning needs and how these can best be met;

3. takes place primarily in the school and is integral to school operations;
4. responds to teachers' individual needs while focusing on collaborative problem-solving;
5. is on-going, includes follow-up programs, and provides opportunities for further learning outside the school;
6. uses multiple measures to determine how professional development affects student outcomes;
7. helps teachers develop a theoretical understanding of knowledge and skills; and
8. is part of a comprehensive effort to overcome barriers to student learning.

Ferraro (2000) adds that effective professional development is linked to inquiry and should include reflection. Teachers would gain a better understanding of their own teaching styles through reflective practice thereby improving their effectiveness in the classroom.

Abdal-Haqg (1996) states that effective staff development is ongoing; includes training, practice and feedback opportunities for inquiry, reflection and coaching; is school-based and embedded in teacher work; is collaborative; focuses on student learning; encourages and supports school-based and teacher initiatives; is rooted in the knowledge base for teaching; incorporates constructivist approaches to teaching and learning;



recognizes teachers as professionals and adult learners; provides adequate time and follow-up support; and is accessible and inclusive.

*Five Models of Professional Development (Format)*

Dennis Sparks and Susan Loucks-Horsely (1989) developed, defined and described five models of staff development that are currently being espoused and used by staff developers.

1. individually-guided staff development - where the learning is designed by the teacher. The teacher determines his or her own goals and chooses the activities that will help accomplish the goals.
2. observation/assessment - which involves classroom observation and evaluation. This process is usually not perceived by teachers as being useful, therefore teachers have a difficult time understanding how it can be a valuable method of staff development. This model can take on many different forms such as peer coaching, mentoring, clinical supervision and evaluation.
3. involvement in a development/improvement process - whereby teachers learn as a result of being involved in the development, design and/or improvement of curriculum, a program, or school improvement. Teachers acquire important knowledge or skills through their involvement in school improvement or curriculum

development processes. Such involvement may cause alterations in attitudes or the acquisition of skills as individuals or groups work toward the solution of a common problem.

4. Training - This type of professional development involves workshop-style sessions that are conducted with a clear set of objectives, goals and outcomes. The trainer selects the activities and the ways in which to engage the learner.
5. Inquiry - This type of professional development involves basic research techniques of formulating questions, gathering and analyzing data, and using findings to advance instruction. This can be formal or informal and can be done collaboratively in groups or it can be a solitary activity.

The five models of staff development that Sparks and Loucks-Horsley (1989) discuss cannot be used in isolation. A composite of these and other factors must be created to fit the environment and the goals and mission of professional development in each particular school district. Thomas Guskey (1995) suggests that general professional practices are described in broad and nebulous terms and that adaptations must be made in order to align with the unique characteristics of the particular setting. Because there are contextual differences in various educational settings, Guskey suggests that there will never

be one right answer for professional development. "Our search must focus, therefore, on finding the optimal mix - that assortment of professional development processes and technologies that will work best in a particular setting" (Guskey, 1995, p. 3).

All efforts of improvement within a school district need to be part of a coherent framework for improvement. There is no one right answer or best way, rather there are a multitude of ways. Therefore, success rests in finding that optimal mix of format, content and context that can be considerably applied in a particular setting.

#### Evaluating Professional Development

Effective professional development is critical and it is at the center of educational reform. Its impact on student achievement and the teacher change process needs to be evaluated. There is little concrete evidence documenting the effects of professional development (Guskey and Sparks, 1996; National Staff Development Council, 1997) at the school district level.

Cook (1997) posits that each professional development effort should be accompanied by a well-designed evaluation plan for determining effectiveness. Evaluation of a professional development program has two important goals: to improve the quality of the program, and to determine its overall effectiveness. Evaluation that is used to modify or improve a professional development program is called

formative evaluation. Evaluation to determine the overall effectiveness of a professional development program is called summative evaluation. Summative evaluations assess educator practices, organizational changes and student outcomes.

Killion (2002b) suggests that more and better evaluations that focus on the link between staff development and student achievement are needed. The Edna McConnell Clark Foundation funded a two-year effort with the National Staff Development Council which aimed at helping schools and districts evaluate the effectiveness of their staff development programs. Killion reports that evaluation of staff development is most powerful when:

1. It focuses on results as well as on the means; it is essential to focus on student results/achievement rather than on strictly how participants reacted to their learning experiences.
2. It focuses on the whole as well as the parts; evaluations should include the comprehensive program, not just isolated pieces of staff development.
3. It is highly related to comprehensive planning of programs; evaluations should be developed during the program planning phase and not as an afterthought.
4. It promotes "evaluation think"; the evaluator should critically analyze and look for evidence.
5. Staff developers use appropriate types of tools to collect data about staff learning; the evaluator

should know how to construct an instrument that is a valid and reliable tool.

6. Practitioners are knowledgeable about the evaluation process; practitioners should have an understanding of how to assess their program.
7. Funding for evaluation is sufficient and appropriately allocated; funds should be allocated during the program planning phase.

According to the Joint Committee on Standards for Educational Evaluation (cited in Guskey, 1998), evaluation is the systematic investigation of merit or worth. Systematic implies that evaluation in this context is thoughtful, intentional and purposeful. All good evaluations are deliberate and systematic. Guskey (1998) states that the objectives for evaluating staff development should include: an examination of staff development to see if it is making a difference in teaching, helping educators reach high standards, and ultimately having a positive impact on students. It is done for clear reasons and with explicit intent. It answers the following questions:

1. Is this program actively leading to the results that were intended?
2. Is it better than what was done in the past?
3. Is it better than another, competing activity?
4. Is it worth the costs?
5. Is it improving teacher performance and student achievement?

The answers to these questions require more than a statement of findings. They demand an appraisal of quality and judgments of value, based on the best evidence available.

Guskey and Sparks (1991) report that evaluation of professional development should begin during the planning and continue throughout all phases of program implementation. Evaluation information should be used to improve the program as well as to make judgments about it. Valuable sources to use in evaluating programs include participants' outcomes (the knowledge, skills and/or attitudes of participants), organizational outcomes, and student outcomes. It is unrealistic to expect improvement in student outcomes if participants and the organization do not change as well.

Guskey (2002) suggests five critical levels of professional development evaluation which are discussed in chapter one of this document and outlined in Table 1.

#### Teacher Perceptions of Professional Development: Reactions, Satisfaction and Actual Learning

A survey by the United States Department of Education (cited in Killion, 1999) indicated that teachers feel that their teaching improves when they spend time in professional development and collaborative activities. Effective professional development provides teachers with

the opportunity to grow in their capacity, to strive for continuous improvement and to function as professional communities.

In a study, through the University of Kentucky, the effects of staff development on teachers' perceptions about effective teaching was conducted (Guskey, 1982). The study was designed to examine whether teachers who receive training and then implement more effective instructional practices change in terms of the reasons they propose for their success. It was hypothesized that as teachers learn about and adopt more effective instructional practices, the reasons they give for their efficacy will reflect a stronger emphasis on teaching behaviors and a diminished importance on factors related to their personal characteristics. Comparisons were made between 46 teachers who were trained in mastery learning techniques and 50 teachers who were not included in the training. A questionnaire was administered to both groups. The results of the study indicate that after implementing mastery learning techniques in their classrooms, teachers do attach considerably greater importance to behavior factors in explaining teaching effectiveness and also connect less importance to personality factors. Apparently, teachers who implement these more effective instructional practices come to believe that behavior factors are of enlarged importance and personality factors are of somewhat less importance to a teachers' effectiveness in the classroom.

The National Foundation for the Improvement of Education of the National Education Association (NEA) (cited in Renyi, 1998) set out to study what constitutes high quality staff development. This two year investigation examined high achieving schools, studied the professional development opportunities, interviewed 1,000 teachers, solicited essays from teachers, conducted focus group sessions and consulted with education researchers and reformers. The results were published in 1996 in the NFIE report *Teachers Take Charge of Their Learning*. Based on the perceptions of teachers, the following two premises emerged from the study:

1. High quality professional development is not a program or an activity, but an ethos - a way of being where learning is suffused throughout the teachers' working lives.
2. Professional development should focus neither on the individual teacher alone nor on districtwide needs, but on the teacher in the context of the school as a whole, and to focus on the school as the unit of work.

Additionally, teachers felt that their foremost concern about professional development was with their need to "keep up" with changing knowledge, changing students and changing society.



### Organizational Support and Change

Creating a profession of teaching in which teachers have the opportunity for continual learning is the likeliest way to inspire greater achievement for children, especially those for whom education is the only pathway to survival and success. (Darling-Hammond, 1998). Darling-Hammond described several schools where professional development includes in-house experts, collaborative learning groups, research and practice, problem solving, organized learning and development of standards, evaluating student learning and their own effectiveness, and shared decision making in order to build a professional culture in the school. An example of whole-school change through professional development was demonstrated in the Samuel Mason School in Roxbury, MA (Lewis, 1998). The teachers and administrators realized the need to reform their current practices and they wanted to concentrate on pedagogy, content and teaching for understanding. They brought in a series of consultants who stayed a full day each week to observe, coach, demonstrate and model ways of integrating technology into the curriculum, developing good early childhood programs, literacy strategies and peer coaching. As a result, student reading and writing performance improved and parent involvement increased. The school formed a partnership with Boston College and college faculty helped design assessment and serve as consultants

in order to sustain the professional development. This two-way partnership enhanced learning at both sites.

Implementing an effective staff development program involves struggling against time constraints but it will help to create a school climate that is more open to teacher learning. Making time for professional development in schools is important to school improvement, yet one of the biggest challenges is creating this time (Abdal-Haqq, 1996). Adding time by extending the school day or year, extracting time from the existing schedule and altering staff utilization patterns are a few strategies used to overcome this challenge.

Perhaps the most formidable challenge to institutionalizing effective professional development time may be the prevailing school culture, which generally considers a teachers' proper place during school hours to be in front of a class which isolates teachers from one another and discourages collaborative work (Abdal-Haqq, 1996, p. 4).

#### Implementation of New Knowledge and Skills

Jacobson and Lehrer (2000) found that in four grade 2 classrooms, children learned about transformational geometry and symmetry by creating cloth quilts. All four teachers participated in professional development that focused on understanding children's thinking about mathematics and problem solving. Student achievement

increased in all four classrooms. Two of the four teachers participated in additional professional growth opportunities on the topic which resulted in more sustained and sophisticated patterns of classroom conversations about transformational geometry. These differences were mirrored by students' achievement that were sustained over time. The research concluded that differences in classroom discussion and student achievement were attributed to differences in teachers' knowledge about typical milestones and trajectories of children's reasoning about space and geometry.

Dilworth and Imig (1995) report in an ERIC Digest that teachers need to build up a repertoire of skills and knowledge that compliment education reform efforts. The authors state that in order to be of greater value to teachers and students, inservice professional development needs to be reconceptualized. A holistic view of the development of a teacher from novice to advanced is needed. Smylie and Conyers (1991) (cited in Dilworth and Imig) posit the following paradigm shifts:

1. From deficit-based to competency-based approaches in which teachers' knowledge, skills and experiences are considered assets.
2. From replication to reflection, in which practicing teachers focus less on the transfer of knowledge and strategy and more on analytical and reflective learning.

3. From learning separately to learning together, in which practicing teachers are jointly responsible for their work in classrooms and their wisdom and experiences are perceived as professional resources.
4. From centralization to decentralization, in which the role of a school system's central administration shifts from identifying and organizing staff development activities to supporting and facilitating those that school-based staff have determined are important and necessary.

A study of the California Formative Assessment and Support System for Teachers (CFASST) determined that the best way to ensure improved student achievement is to put knowledgeable, high quality, qualified teachers in the classroom. Investing in teacher professional development and providing for sustained examination and evaluation of teaching over time is the path to increased success for students and teachers (Hertert, 1997).

#### Teacher Perception of Student Learning Due to Professional Development

The search for determining the link between professional development and student achievement is an ongoing theme noted in current research literature. According to Guskey (1998), student learning outcomes may be indicated by assessment results, portfolio evaluations,

marks or grades, or scores from standardized examinations. They may also include measures of students' attitudes, study habits, school attendance, homework completion rates, or classroom behaviors. The learning outcomes of interest depend upon the nature of the staff development, the intended goals, and the participants.

In an extensive study of several California school districts, researchers Cohen and Hill (1998) report that students who performed best on a new math assessment had teachers who had high quality professional development. The researchers tracked the same schools and the same teachers for five years. They surveyed 1,000 teachers in grades 2<sup>nd</sup> through 5<sup>th</sup> and compared student performance on a standardized test, the California Learning Assessment System (CLAS), with the professional development experiences of their teachers. The researchers discovered that schools where all teachers had extensive staff development in CLAS had higher test scores than schools where no teachers learned about CLAS. Teachers reported that merely participating in workshops did not lead to student learning, but using the test to learn and reform their practice did. Teachers reviewed their practice and reflected upon their instruction, made changes, and noted increased student achievement.

The Council for School Performance and Georgia State University published a report entitled Staff Development and Student Achievement: Making the Connection in Georgia

Schools (Harkreader & Weathersby, 1998). The research study was designed to gather data from high achieving schools and low achieving schools across a full range of socio-economic status and to test the extent to which staff development impacted student performance. The findings indicated that there were clear differences in staff development in the two groups of schools. In the lower achieving schools, staff development had little connection to student performance and classroom results; in the higher achieving schools it was a collaborative effort to improve student achievement. Professional development in the higher achieving schools included a focus on students and classroom, more effective processes, teacher and administrator collaboration on decisions about effective staff development and more support from the school leaders. In the lower achieving schools, staff development was disjointed, haphazard, used less effective training strategies and received less administrative support. Teachers tended to participate in training opportunities that focused on their individual needs rather than on the school's collective needs based on student achievement data. There was a greater emphasis on certification renewals and stipends. The study concluded that changes in student achievement occur when the content of staff development represents an improvement in curriculum and instruction and is designed for full implementation. Staff development that will have a positive impact on student

improvement requires long term programs that reach teachers regularly throughout the school day; not just one shot workshops. It requires, theory and demonstration, practice and feedback; not lecture. Collective study of student learning, administrative leadership, and support for ongoing collaboration about improving teaching and learning is vital for professional development programs that positively impact student achievement.

Two studies (cited in Sparks, 1998) emphasize the importance of teacher proficiency in student learning. In the January 1998 issue of *Phi Delta Kappan*, author Chris Phipps reports on Tennessee's value-added assessment system. Phipps submits that the one largest factor affecting academic development of students is differences in effectiveness of individual classroom teachers. Lower achieving students are the first to profit as teacher effectiveness improves. A follow up report to *What Matters Most: Teaching for America's Future* by the National Commission on Teaching and America's Future described similar findings. The study, *Doing What Matters Most*, cited a Texas investigation that found teachers' expertise accounts for about 40% of the variance in students' reading and mathematics achievement at grades one through eleven, more than any other single factor. The report states:

The effects were so strong and the variations in teacher expertise so great that, after

controlling for socioeconomic status, the large disparities in achievement between black and white students were almost entirely accounted for by differences in the qualifications of their teachers (p. 7).

Joyce and Calhoun (1996) (cited in Lashway, 1998), refer to a case of a middle school in which only 30% of the students earned promotion at the end of each year. Although these figures were known to everyone in the school for years, the faculty had never met to reflect on the failure rate or learn the causes. When a staff development program finally focused attention on the figures and used student achievement data to inform professional development activities, the circumstances began to change. Within two years, 95% of the pupils were being promoted.

At its core, good teaching requires that teachers have a deep knowledge of the subjects they teach, a range of instructional skills to teach that content, knowledge about their students, and attitudes that support high levels of learning for all students (Sparks, 1998).



## CHAPTER III

### METHODOLOGY

#### Introduction

This study evaluates the impact of professional development on classroom teachers using Guskey's (2000, 2002) models of teacher change and evaluating professional development. It investigates teacher perception of professional development at six levels (1) participant reactions/satisfaction, (2) participant learning, (3) organizational support and change (4) participants implementation of new knowledge and skills (5) participants perceptions of student achievement and (6) change in participants attitudes and beliefs. It also includes various school variables such as: professional development process, professional development format, and professional development content.

#### Subjects

The subjects in this study consisted of certified Kindergarten through grade 12 classroom teachers in two public suburban school districts in New York State. Six hundred fifty (650) surveys were distributed and 205 were returned by mail.

The two school districts that participated in this study were of similar demographic characteristics and were categorized as low student needs in relation to district resource capacity.

#### Field Procedures

The following data collection steps were taken:

1. A letter outlining the study, together with the survey (Appendix A), was distributed to all K-12 teachers in the two school districts. The researcher brought the surveys to the schools and placed them in all teacher mailboxes.
2. A self addressed stamped envelope was provided for return. The participants completed the surveys by the due date (5 days after distribution), and mailed it back to the researcher.
3. The surveys were color coded by district but were anonymous for the participants. Two different colors of paper were used; different colors for each school district.

#### Instrumentation

A voluntary professional development survey for teachers was used to gather data for this study. The survey questionnaire consisted of a five point Likert scale and determined teachers' perceptions of staff development

at six levels of evaluation.

Some questions on the questionnaire were adapted from an investigation of the effectiveness of professional development conducted by a fellow researcher in the field of education. Dr. Lori Liguori granted permission for her questionnaire to be used or modified (Appendix B). Only a few questions were used and they were adapted to fit the needs of this study. The survey is based on the literature of the five critical levels of evaluating professional development and Guskey's model of teacher change (Guskey, 2000). A jury of experts, including an Assistant Superintendent for Curriculum and Instruction, two college professors, and a group of teachers and Professional Development Committee members reviewed the survey instrument. Data from this group of experts was combined with the research literature as an aid in developing the survey. Ambiguous and/or redundant questions were eliminated and the format was adjusted as needed. The jury of experts established face and content validity.

Section One of the instrument contained background information questions that collected descriptive (nominal) data about school variables including: professional development process, format, and content.

Section Two of the instrument contained questions that determined the perceptions of professional development of teachers at six levels as shown below:

1. participant satisfaction
2. participant learning
3. organizational support and change
4. change in teacher knowledge, skills, and instructional pedagogy
5. teacher perception of student learning
6. changes in attitudes and beliefs of teachers

#### Data Collection and Reporting

Data was collected using a survey questionnaire instrument. District superintendents granted permission for research to be conducted in their school districts. The survey was distributed to teachers via their school mailboxes by the researcher, in person. The participants mailed the surveys back to the researcher using a self-addressed stamped envelope. Results were tallied and the SPSS computer program was used to statistically analyze the data using the techniques described in the following section.

#### Data analysis

The purpose of this study was to evaluate the effectiveness of professional development on classroom teachers at six levels in light of process, format and content of their professional development experiences. The data from the variables (professional development process, format, and content) in Section One of the survey were

reported by group. The items in Section Two of the survey were grouped to form six categories related to teacher perception of professional development: (1) participant reactions/satisfaction, (2) participant learning, (3) organizational support and change (4) participants implementation of new knowledge and skills (5) participants perceptions of student achievement and (6) change in participants attitudes and beliefs.

Descriptive statistics were used to analyze the data from the survey including means, standard deviations, and frequencies to determine the distribution of scores and pattern of responses. Each Likert scale item was numbered where Strongly Agree is 5, Agree is 4, No Opinion is 3, Disagree is 2 and Strongly Disagree is 1.

Statistical analysis was conducted on the variables utilizing two T-tests and a Pearson Correlation. The T-test for equality of means was performed on the variables to determine if there was a statistically significant difference between the means of teachers' who experienced effective professional development and how they perceived their experiences at the five levels of evaluation and the model of teacher change. Another T-test was performed to determine if there was a statistically significant difference between the means of teachers' who experienced ineffective professional development and how they perceived their experiences at the five levels of evaluation and the model of teacher change. A Pearson Correlation was

conducted to determine the relationship between the change in teachers' attitudes and beliefs about teaching and their perceptions of professional development at each of the levels.

### Research Design

This was a quantitative study designed to investigate teacher's perceptions of professional development through Guskey's (2000, 2002) models of teacher change and five criteria of professional development evaluation. Survey research methodology for the purpose of evaluation was used to collect data in two school districts of similar demographics. A survey instrument was used along a five point Likert scale. The findings from the questionnaire were used as a formative evaluation for the participating school districts. Formative evaluation is used to provide feedback and information for the purposes of improving a program. The participating school districts will be able to use the results and recommendations from this study to inform changes in professional development.

## CHAPTER IV

### RESULTS AND ANALYSIS

The purpose of this study was to evaluate professional development at six critical levels in two school districts. This chapter presents, in research question format, the results of the survey data.

The following research questions operationalize the purpose of the study:

1. What is the nature of the professional development process in the participating districts?
  - a. Are teachers aware of the goals of the district's professional development plan?
  - b. Is the professional development process linked to overall school improvement and student achievement?
  - c. Is professional development linked to the teacher evaluation process?
  - d. When is professional development offered to teachers?
2. What is the nature of the professional development format in the participating districts?
  - a. What types of professional development activities and strategies are being implemented?

3. What is the nature of the professional development content in the participating districts?
  - a. Who makes decisions about what professional development topics are offered to teachers in the district?
  - b. What topics are offered?
4. What relationship exists between the change in teachers' attitudes and beliefs about teaching and learning and their perceptions of professional development at each of the five levels of evaluation?
5. How do teachers who have experienced research-based effective professional development process, content and format evaluate their experiences of professional development at each of the five levels and the teacher change process?
6. How do teachers who have experienced ineffective professional development process, content and format evaluate their experiences of professional development at each of the five levels and the teacher change process?



## Analysis of Demographic Data

### *The School Districts*

The population involved in this study included teachers in eleven schools in two school districts in New York State. The demographics of the two school districts were very similar. Table 2 presents the demographic data of the school districts. The grade range within the school districts were identical and included grades kindergarten through grade 12. District I had approximately 363 teachers in six schools; four elementary schools, one middle school and one high school. District II had approximately 318 teachers in five schools; three elementary schools, one middle school and one high school. The Districts were very similar in student enrollment with 4,943 in District I and 4,856 in District II. The table depicts the percentage of students who receive free and reduced lunch, the percentage of students who come from non-English language homes (ESL) and the District's need category. The New York State Education Department assigns each school district to a comparison group based on student demographics and the resource capacity of the district. District I is in a Need/Resource Capacity Group 6. This district has low needs relative to local resource capacity. District II is in a Need/Resource Capacity Group 5. This District has average needs relative to local resource capacity. The per pupil expenditures in each district were

about the same.

Table 2

*Participating School Districts*

	District I	District II
Grade Range	K-12	K-12
Number of Schools	6	5
Approx. # of Teachers	363	318
Enrollment	4,943	4,856
% Free/Reduced Lunch	2.0	3.7
% of ESL	1.5	0.6
Need Category	6	5
Per Pupil Expenditure	\$11,671	\$12,309

Note. Demographics of participating school districts were obtained from New York State Education Department web site <http://www.nysed.org> (2000-2001). Published information.

### *The Respondents*

As indicated in Chapter III, 650 surveys were distributed to K-12 teachers in the eleven schools and 205 were returned by mail for a 32% response rate. Table 3 depicts the demographic data of respondents in terms of number of years of teaching experience, number of years teaching in the school district, and the grade level currently teaching. Years of teaching experience ranged from 1 to over 30. A large percentage of the respondents (81 out of 205) had between one and nine years of teaching experience (39.5%). Fifty-five teachers in the sample had between 10 and 19 years of teaching experience (26.8%), forty-four teachers were teaching between 20 and 29 years (21.5%), and there were 25 teachers in the sample who had been teaching for more than 30 years (12.2%).

More than half of the participants (115 out of 205) had been teaching in the school district for less than ten years (56.1%). Thirty-seven teachers were teaching in the district between 10 and 19 years (18.1%), thirty-two teachers were teaching in the district between 20 and 29 years (15.7%), and twenty-one teachers had been teaching in the district for more than 30 years (10.2%).

The representation from each grade level cluster of primary grades K-2 at 21.5%, elementary grades 3-5 at 26.3%, middle school grades 6-8 at 24.4% and high school grades 9-12 at 27.8% was distributed almost equally.

Table 3

*Demographic Data of Sample*

		Frequency N = 205	Percent of Sample
Years teaching experience	1-9	81	39.5%
	10-19	55	26.8%
	20-29	44	21.5%
	30+	25	12.2%
Years in District	1-9	115	56.1%
	10-19	37	18.1%
	20-29	32	15.7%
	30+	21	10.2%
Grade level	Primary (K-2)	44	21.5%
	Elementary (3-5)	54	26.3%
	Middle (6-8)	50	24.4%
	High School (9-12)	57	27.8%

Table 4 depicts the frequency data for the subject or content area that the teachers in the sample taught. Many of the teachers (35.6%) were categorized as general education teachers who were elementary school teachers in grades Kindergarten through fifth grade. Special education teachers in grades K-12 represented 10.7% of the sample. Various subject area teachers at the middle and high school level responded to the survey and their representation is as follows: science teachers 9.3%; special area teachers such as art, music, physical education 7.3%; social studies teachers 6.8%; English teachers 6.3%; math teachers 4.4%; foreign language teachers 4.4%; remedial reading teachers 2.9% home and career or technology education teachers 2.4%; and school support personnel such as guidance counselors, psychologist represented 2.4% of the sample.

Table 4

Frequency Data for Subject or Content Area of Teachers in  
Sample

Subject	Frequency	Percent of
	N = 205	Sample
General Ed. (Elem K-5)	73	35.6%
Special Education (K-12)	22	10.7%
Science	19	9.3%
Special Area (art, music, PE)	15	7.3%
Social Studies	14	6.8%
English	13	6.3%
Math	9	4.4%
Foreign Language	9	4.4%
Remedial Reading	6	2.9%
Home and Career or Tech Ed	5	2.4%
Support Services (guidance, psychologist)	5	2.4%

Note. Totals do not add to 100% due to items left blank by respondent

## Descriptive Analysis

### *Professional Development Process*

Research question one: What is the nature of the professional development process in the participating districts?

- a. Are teachers aware of the goals of the district's professional development plan?
- b. Is the professional development process linked to overall school improvement and student achievement?
- c. Is professional development linked to the teacher evaluation process?
- d. When is professional development offered to teachers?

The survey (Appendix A) presented three questions to the participants relating to the professional development process in their school district. Respondents indicated on question one of the survey whether or not they were aware of the goals of their district's professional development plan (PDP). Question two asked whether or not their district's professional development plan is linked to student achievement. Question three asked whether or not their district's professional development plan is related to the teacher evaluation process.

Table 5 indicates that 68% of the teachers were aware of the goals of their district's professional development



plan and 31.2% were not. Seventy three percent of the respondents indicated that their district's professional development plan is linked to the overall improvement of the school district and to increasing student achievement. Twenty-four percent were not sure and 2.9% responded no to this question. Teachers indicated whether or not their district's professional development plan is related to the teacher evaluation process. While 43.9% of the respondents indicated that the professional development plan is linked to the teacher evaluation process, 35.6% were unsure and 20.5% indicated that it was not aligned.

Table 5

Frequency Data Related to Professional Development Plan and Goals

		Frequency	Percent
		N = 205	of Sample
Aware of Professional Development Plan Goals	Yes	141	68.8%
	No	64	31.2%
Professional Development Plan linked to Student Achievement	Yes	150	73.2%
	No	6	2.9%
	Not Sure	49	23.9%
Professional Development Plan Linked to Teacher Evaluation	Yes	90	43.9%
	No	42	20.5%
	Not Sure	73	35.6%

Respondents indicated on question four of the survey (Appendix A) that they have participated in professional development activities that were offered at various times by the school district. Table 6 represents this data. An overwhelming number of respondents (90.2%) indicated that they participated in professional development during school district conference days. Other teachers (62.9%) indicated that they were given professional development opportunities before and after school hours. About half of the respondents (54.6%) were given professional development experiences during the school day as well as full days during the summer (51.2%). Teachers also indicated that they participated in professional development during the beginning of the school year, which would be the end of August or early September (34.6%), or at the end of the school year, which would be the week after school dismisses in June (32.7%). Twenty-nine percent of the respondents indicated that they were involved in professional development on the weekend and 16.1% had evening opportunities. Some respondents (4.4%) indicated that they were able to take online courses and 2.4% of the respondents participated in professional development during their lunch hour.

Table 6

*Frequency Data for Professional Development Designs  
Participated in by Respondents*

	Frequency N = 205	Percent of Sample
Conference days	185	90.2%
Before/After school	129	62.9%
During the day	112	54.6%
Full days during summer	105	51.2%
Beginning of school year	71	34.6%
End of school year	67	32.7%
Weekends	60	29.3%
Evenings	33	16.1%
Online	9	4.4%
Lunch hour	5	2.4%

Note. Totals do not add to 100% due to more than one option being chosen by respondents.

### *Professional Development Format*

Research question two: What is the nature of the professional development format in the participating districts?

- a. What types of professional development activities and strategies are being implemented?

Survey respondents indicated on question five of the survey (Appendix A) that they have participated in a variety of professional development activities that incorporate different types of presentation strategies. Table 7 displays the frequency data for professional development format in which the respondents participated. Respondents most frequently participated in training sessions consisting of workshops or seminars (91.2%), conferences (75.6%), presentations or demonstrations (66.3%), and expert lectures (33.2%). The second format of professional development most frequently utilized was the courses category. The courses category consists of graduate courses (79%), BOCES courses (58.5%), Teacher Center courses (47.8%), adult education classes (22.4%), ongoing courses offered within the district with no follow up in-class support (14.1%) and ongoing courses offered within the district with continual in-class support (13.2%). The third format of professional development most frequently participated in by respondents was observation and assessment. This category consists of classroom

observation by administrators (92.2%), formal mentoring program with a trained mentor (39%), and classroom observation by a peer (12.2%). Individually guided professional development was the fourth most frequently used format in this study. This category consists of the creation of individual professional development plans where learning is designed by the teacher through goal setting (53.2%), guided practice (45.4%), reflection (37.6%), and individual professional improvement plans where teachers exercise an improvement plan in an identified area of weakness (3.9%). The fifth most frequently used category of professional development format is the involvement in a district improvement process. This includes curriculum development (86.3%) and participating on a school improvement committee (42.9%). The least frequently used professional development format in this study is inquiry. Inquiry involves peer study groups where teachers meet to discuss current research (25.9%) and action research where teachers formulate questions, gather and analyze data and use their findings to inform instruction (17.6%).

Table 7

*Frequency Data for Professional Development Format**Participated in by Respondents*

	Frequency N = 205	Percent of Sample
<hr/>		
Training		
Presentations or Demonstrations	136	66.3%
Workshops or Seminars	187	91.2%
Conference	155	75.6%
Expert Lectures	68	33.2%
Courses		
Graduate courses	162	79.0%
Long term courses within district with in-class support	27	13.2%
Long term course within district with no in-class support	29	14.1%
Adult Education	46	22.4%
Teacher center courses	98	47.8%
Boces courses	120	58.5%
Observation/Assessment		
Classroom observation by admin	189	92.2%
Classroom observation by peer	25	12.2%
Mentoring	80	39.0%

## Individually guided Staff

## Development

Individual PDP	109	53.2%
Individual PIP	8	3.9%
Guided practice	93	45.4%
Reflection	77	37.6%

## Involvement in an Improvement

## Process

Curriculum development	177	86.3%
School improvement committee	88	42.9%

## Inquiry

Peer study group	53	25.9%
Inquiry/Action research	36	17.6%

Note. Totals do not add to 100% due to more than one option being chosen by respondents



### *Professional Development Content*

Research question three: What is the nature of the professional development content in the participating districts?

- a. Who makes decisions about what professional development topics are offered to teachers in the district?
- b. What topics are offered?

Table 8 depicts the results of the participants' responses on survey questions six (Appendix A) regarding the professional development content decision-making process. Many teachers responded that either the district level administrators (69.8%) or the building level administrators (42.4%) were making decisions about what professional development content would be offered to teachers. Some respondents indicated that other people in the district were part of this decision making process such as grade level or department chair (26.8%), a combination of all (26.3%), a teacher group (21.5%) or a professional development committee (8.3%).

Table 8

*Frequency Data Related to Decisions Made About Professional Development Content*

	Frequency	Percent
	N = 205	of Sample
District Administrators	143	69.8%
Building Administrators	87	42.4%
Grade/Department Chairperson	55	26.8%
Combination	54	26.3%
Teachers	44	21.5%
Professional Development Committee	17	8.3%

Note. Totals do not add to 100% due to participants responding to more than one option

Survey respondents were asked in question seven of the survey (Appendix A) to list the topics of the last three professional development opportunities offered by the school district in which they participated. The results are shown in Table 9. Of the 205 respondents, 108 indicated that they participated in professional development related to instructional technology (52.7%), 49 teachers participated in curriculum development (24.0%), 42 teachers participated in reading and early literacy staff development (20.5%), 41 in math (20.1%), 40 teachers participated in a differentiating instruction staff development opportunity (19.5%), 19 in teaching strategies (9.3%), 18 in special education such as inclusion techniques (8.8%), 17 teachers worked on assessments and data analysis (8.3%), 16 respondents participated in learning styles staff development (7.8%), 10 teachers worked on mentoring (4.8%), 10 teachers participated in learning about classroom management techniques (4.8%), 7 respondents took part in school violence and counseling professional development opportunities (3.5%), and 7 teachers were involved in character education (3.5%).

Table 9

Frequency Data Related to Professional Development Content

	Frequency N = 205	Percent of Sample
Technology	108	52.7%
Curriculum Development	49	24.0%
Reading/Early Literacy	42	20.5%
Math	41	20.1%
Differentiation	40	19.5%
Teaching Strategies	19	9.3%
Special Education	18	8.8%
Assessments and Data Analysis	17	8.3%
Learning Styles	16	7.8%
Mentoring	10	4.8%
Classroom Management	10	4.8%
School Violence/Counseling	7	3.5%
Character Education	7	3.5%

Note. Totals do not add to 100% due to participants indicating more than one topic.

## Statistical Analysis

### *Teachers' Perceptions of Professional Development*

Participants answered questions numbered 8-50 in Section Two of the survey (Appendix A) using a Likert scale. They were asked to evaluate their professional development experiences by responding to a statement pertaining to professional development. Participants checked their responses on a five point Likert scale. The scale was coded as follows: Strongly Agree = 5, Agree = 4, No Opinion = 3, Disagree = 2, and Strongly Disagree = 1. Therefore, upon statistical analysis, the closer the number was to 5, the more the respondent agreed with the statement and the closer the number was to 1 the less the respondent agreed with the statement. Tables 10 - 15 represent the means and standard deviations for each question on the survey that pertain to respondents' perceptions of professional development at each of the five levels of evaluation and the teacher change process.

Table 10

*Means and Standard Deviations for Survey Questions 8-13**Related to Participants' Reactions (Evaluation Level 1)*

Question: Professional Development in my school district:	N	M	SD
Meets my needs	203	3.37	1.05
Is non-threatening	204	3.99	.76
Is offered at a convenient time	204	3.59	.97
Is time is well spent	204	3.46	1.06
Is offered by instructors who are knowledgeable and effective	204	3.89	.66
Is generally a positive experience	204	3.78	.81

Note. Likert scale: 5 = strongly agree; 4 = agree; 3 = no opinion; 2 = disagree; 1 = strongly disagree.

Table 11

*Means and Standard Deviations for Survey Questions 14-17*

*Related to Participants' Learning (Evaluation Level 2)*

Question: Because of Professional Development, I have learned:	N	M	SD
Practical instructional strategies	204	3.87	.81
New knowledge and skills	204	3.96	.81
The theory behind the practice	204	3.61	.87
New concepts connected to prior knowledge	204	3.89	.75

Note. Likert scale: 5 = strongly agree; 4 = agree; 3 = no opinion; 2 = disagree; 1 = strongly disagree.

Table 12

*Means and Standard Deviations for Survey Questions 18-22  
Related to Organizational Support and Change (Evaluation  
Level 3)*

Question: Professional Development in my school district:	N	M	SD
Has positive impact on the organization	205	3.42	.90
Has a positive impact on the culture and climate of my school	205	3.26	.92
Is often conducted during the school day	205	2.80	1.15
Leads to inservice or stipend	204	3.46	1.04
Is recognized as being important by: BOE	205	3.16	1.04
District Administrators	205	3.74	.91
Building Administrators	205	3.83	.82
My colleagues	204	3.62	.97
Myself	204	3.98	.90
Parents	203	3.11	.78

Note. Likert scale: 5 = strongly agree; 4 = agree; 3 = no opinion; 2 = disagree; 1 = strongly disagree.



Table 13

*Means and Standard Deviations for Survey Questions 23-27  
Related to Participants' Use of New Knowledge and Skills  
(Evaluation Level 4)*

Question: After I have participated in	N	M	SD
Professional Development I usually:			
Go back and experiment with new strategies	204	4.10	.70
Implement/apply new instructional practices	204	4.10	.67
Become committed to new teaching strategies	204	3.52	.93
Note positive changes in my teaching	204	3.87	.78
Make long lasting changes in my teaching	204	3.67	.90

Note. Likert scale: 5 = strongly agree; 4 = agree; 3 = no opinion; 2 = disagree; 1 = strongly disagree.

Table 14

*Means and Standard Deviations for Survey Questions 28-35**Related to Student Learning Outcomes (Evaluation Level 5)*

Question: Generally, professional development	N	M	SD
impacts my students in the following ways:			
Makes positive impact on learning	204	3.99	.70
Student achievement increases	204	3.59	.83
Students are more engaged in learning	204	3.82	.78
Students are involved in their own learning	204	3.67	.82
Classroom management has improved	204	3.50	.99
Student achievement has risen on state or district assessments	204	3.36	.81
Student achievement has risen on teacher or classroom assessments	204	3.47	.81
Students' confidence as learners has improved	204	3.60	.81

Note. Likert scale: 5 = strongly agree; 4 = agree; 3 = no opinion; 2 = disagree; 1 = strongly disagree.

Table 15

*Means and Standard Deviations for Survey Questions 36-50  
Related to Teacher Change in Attitudes and Beliefs  
(Evaluation Level 6)*

Question: As a result of professional development, my attitudes and beliefs about teaching and learning change when:	N	M	SD
The experience was meaningful to me	205	4.32	.72
I learned practical instructional strategies	205	4.39	.69
My teaching becomes more effective	205	4.29	.70
I am more efficient or productive	205	4.25	.74
I've enjoyed the experience	205	4.32	.70
I become empowered in new ways	205	4.09	.82
I have learned to meet the various needs of all of my students	205	4.07	.88
It has a positive impact on student behavior	205	4.05	.86
My students become more actively engaged in learning	205	4.23	.75
I can see a positive impact on student achievement	205	4.16	.77
It impacts my annual performance evaluations positively	205	3.57	.94

I receive positive feedback from my supervisor	205	3.61	.91
My efforts are recognized	205	3.62	1.04
I feel proud of my accomplishments	205	4.17	.69
It connects to district needs and overall school improvement	205	3.86	.80

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Note. Likert scale: 5 = strongly agree; 4 = agree; 3 = no opinion; 2 = disagree; 1 = strongly disagree.

Selected data from Section One of the questionnaire were grouped to form two categories. The first category includes participants' responses to variables related to effective professional development process, format, and content. The second category includes participants' responses to variables related to ineffective professional development process, format, and content. Each category was created based on research and the literature that supports the characteristics of what constitutes effective and ineffective professional development. The variables for the effective professional development category are identified in Table 16. The variables for the ineffective professional development category are identified in Table 17.

Table 16

*Effective Professional Development Variables from the Survey*

Category	Variable	Item Number From the Survey	Response
Effective Professional Development	Process	1. Aware of goals of professional development plan	Yes
	Process	2. Professional development plan linked to school improvement	Yes
	Process	3. Professional development plan linked to teacher evaluation process	Yes
	Process	4. Professional development is offered:	During school day
	Format	5. Types of professional development activities	Individual professional development plan
	Format	5. Types of professional development activities	Guided practice
	Format	5. Types of professional development activities	Reflection
	Format	5. Types of professional development activities	Mentoring

Format	5. Types of professional development activities	Curriculum development days
Format	5. Types of professional development activities	Peer study groups
Format	5. Types of professional development activities	Inquiry/Action research
Format	5. Types of professional development activities	Long term courses with in-class support
Content	6. Who decides the content of professional development in the district?	Combination

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Table 17

*Ineffective Professional Development Variables from the Survey*

Category	Variable	Item Number From the Survey	Response
Ineffective Professional Development	Process	1. Aware of goals of professional development plan	No
	Process	2. Professional development plan linked to school improvement	No
	Process	3. Professional development plan linked to teacher evaluation process	No
	Process	4. Professional development is offered:	Before and after school
	Process	4. Professional development is offered:	On lunch hour
	Process	4. Professional development is offered:	On weekends
	Format	5. Types of professional development activities	Classroom observation
	Format	5. Types of professional development activities	Presentations or demonstrations
	Format	5. Types of professional development activities	Workshops or seminars
	Format	5. Types of professional development activities	Conferences



Format	5. Types of professional development activities	Expert lectures or motivational speeches
Content	6. Who decides the content of professional development in the district?	Teachers only

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The 42 items in Section Two of the survey (Appendix A) were clustered to form six categories according to Guskey's (2000) levels of professional development evaluation and model of teacher change. Items numbered 8-13 were clustered then summed into Level 1 (participants' reactions), items numbered 14-17 were clustered then summed into Level 2 (participants' learning), items numbered 18-22 were clustered then summed into Level 3 (organizational support and change), items numbered 23-27 were clustered then summed into Level 4 (participants' use of new knowledge and skills), items numbered 28-35 were clustered then summed into Level 5 (student learning outcomes) and items numbered 36-50 were clustered then summed into Attitudes and Beliefs (Guskey's Model of Teacher Change).

Research question four: What relationship exists between the change in teachers' attitudes and beliefs about teaching and learning and their perceptions of professional development at each of the five levels of evaluation? Correlation data for this question appear in Table 18. The Pearson Correlation Coefficient was statistically significant at the .01 level for all items in the analysis. Correlation coefficients range from .244 to .453 and indicate positive relationships among the variables measured.

Table 18

*Correlation Between Change in Teachers' Attitudes and Beliefs About Teaching and Learning and Perceptions of Professional Development at Each of the Five Levels of Evaluation*

	Participants Reactions	Participants Learning	Organization Support and Change	Use of New Knowledge and Skills	Student Learning Outcomes	Change in Attitude and Beliefs
Participants Reactions	1.000	.601**	.660**	.496**	.530**	.244**
Participants Learning	.601**	1.000	.542**	.635**	.620**	.358**
Organization Support and Change	.660**	.542**	1.000	.507**	.591**	.290**
Use of New Knowledge and Skills	.496**	.635**	.507**	1.000	.740**	.471**
Student Learning Outcomes	.530**	.620**	.591**	.740**	1.000	.453**
Change in Attitude and Beliefs	.244**	.358**	.290**	.471**	.453**	1.000

Note. \*\*  $p < .01$  (two tailed)

Research question five: How do teachers who have experienced research-based effective professional development process, content and format evaluate their experiences of professional development at each of the five levels of evaluation and the teacher change process?

Data from thirteen variables in Section One of the survey were aggregated based on what the literature suggests constitutes effective professional development (see Table 16). This data was given numerical codes and scores for effective professional development were produced. The range of scores for effective professional development was 28-13 based on the way the data was coded and possible participant responses. Participant scores in this section between 28 and 21 were grouped (group 2) and considered to be in the upper range (most effective) of effective professional development. Participant scores in this section between 20 and 13 were grouped (group 1) and considered to be in the lower range (least effective) of effective professional development. Then, a t-test for equality of means of scores in the upper end of effective professional development variables and the lower end of effective professional development variables for each level of evaluation was performed to answer research question five. Table 19 indicates a statistically significant difference between the mean scores of participants at the upper end of effective professional development and those at the lower end of effective professional development at

all levels.

Table 19

*T-test of Results of Upper and Lower End Effective  
Professional Development and Evaluation at Each of the Five  
Levels and the Teacher Change Process*

		N	Mean	S.D.	Mean Difference	t	df	sig.
Level 1 Participants Reactions	Upper End (group 2)	110	23.58	3.10	3.27	6.378	200	.000**
	Lower End (group 1)	92	20.32	4.17				
Level 2 Participants Learning	Upper End (group 2)	110	16.25	2.30	2.02	5.714	200	.000**
	Lower End (group 1)	92	14.23	2.72				
Level 3 Organization Support and Change	Upper End (group 2)	110	36.35	4.28	4.42	6.559	198	.000**
	Lower End (group 1)	90	31.92	5.26				
Level 4 Use of New Knowledge and Skills	Upper End (group 2)	110	20.31	3.03	2.31	4.951	181	.000**
	Lower End (group 1)	92	18.00	3.51				
Level 5 Student Learning Outcomes	Upper End (group 2)	110	30.63	4.47	3.53	4.852	200	.000**
	Lower End (group 1)	92	27.10	5.86				
Change in Attitude and Beliefs	Upper End (group 2)	109	62.72	7.50	3.77	2.942	166	.004**
	Lower End (group 1)	93	58.95	10.23				

Note. \*\*p<.05 (two tailed)

Research question six: How do teachers who have experienced ineffective professional development process, content and format evaluate their experiences of professional development at each of the five levels and the teacher change process?

Data from twelve variables in Section One of the survey was coded and totaled based on what the professional literature suggests is characteristic of ineffective professional development (see Table 17). The range of scores was 18-9 based on possible participant responses of the selected variables and the way they were coded. Participant scores of 18-14 were grouped (group 2) and were considered to be in the upper end of ineffective professional development; or least ineffective. Participant scores ranging between 13 and 9 were grouped (group 1) and were considered to be in the lower range of ineffective professional development; or most ineffective. A t-test for equality of means of scores in the upper end of ineffective professional development variables and the lower end of ineffective professional development variables for each level of evaluation was then performed to answer research question six. Table 20 displays the t-test data. The results of the t-test indicate that there is a statistically significant difference between the mean scores of participants at the upper end of ineffective professional development and those at the lower end of ineffective professional development at each critical level

of evaluation.



Table 20

*T-test of Results of Upper and Lower End Ineffective  
Professional Development and Evaluation at Each of the Five  
Levels and the Teacher Change Process*

		N	Mean	S.D.	Mean Difference	t	df	sig.
Level 1 Participants Reactions	Upper End (group 2)	126	23.03	3.35	2.47	4.524	201	.000**
	Lower End (group 1)	77	20.56	4.40				
Level 2 Participants Learning	Upper End (group 2)	126	16.03	2.35	1.85	5.050	201	.000**
	Lower End (group 1)	77	14.18	2.81				
Level 3 Organization Support and Change	Upper End (group 2)	125	35.01	5.12	1.68	2.222	155	.028**
	Lower End (group 1)	76	33.33	5.24				
Level 4 Use of New Knowledge and Skills	Upper End (group 2)	126	19.82	3.38	1.47	3.009	161	.003**
	Lower End (group 1)	77	18.35	3.36				
Level 5 Student Learning Outcomes	Upper End (group 2)	126	29.94	5.14	2.49	3.189	151	.002**
	Lower End (group 1)	77	27.45	5.55				
Change in Attitude and Beliefs	Upper End (group 2)	125	62.18	8.36	3.01	2.251	144	.026**
	Lower End (group 1)	78	58.17	9.79				

Note. \*\*p<.05 (two tailed)

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

Effective professional development is considered to be the center of educational reform (Dilworth & Imig, 1995). It is an area about which little known, with only a few studies that document its impact, cost and effect. Policy makers, boards of education, legislators, funding agencies and taxpayers all want to know if professional development makes a difference (Guskey, 1994).

The No Child Left Behind legislation recognizes professional development's key role in school reform and makes large amounts of money available for professional learning. The federal government has also increased its understanding and definition of what constitutes effective professional development. The law defines professional development activities as high quality, sustained, intensive, and classroom focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom. The legislation also says quite clearly that professional development activities are not one-day or short-term workshops or conferences. States and local districts are

required to plan systemically for professional learning and are focusing efforts on the improvement of teacher performance and student achievement (Richardson, 2002).

Evaluations of professional development programs in school districts are important to the improvement of teacher performance and student learning. However, many evaluations of professional development only assess the participants' satisfaction and/or their opinions of their professional development experiences.

In his book, *Evaluating Professional Development*, Guskey (2000) states that professional development evaluation should focus on measuring its impact in terms of change in the knowledge, skills, attitudes and beliefs of teacher participants. In order for staff development to have an impact on students, Guskey suggests that it must first have an impact on the teachers who are engaged in the professional development experience. This concept is supported by other researchers in the field. According to the National Staff Development Council (2001), "Staff development is the means by which educators acquire or enhance the knowledge, skills, attitudes, and beliefs necessary to create high levels of learning for all students." (p. 2).

Thomas Guskey (2000) posits that many professional development efforts fail because they lack focused planning, are unrelated to the daily lives of the teacher and thereby do not affect instructional practice.

Therefore, well-designed, thoughtfully planned and adequately supported professional development is a necessary ingredient in all educational improvement efforts. Guskey also says that professional development programs do not take into account what motivates teachers nor do they attempt to delineate the process of teacher change. Professional development programs that focus on changing teachers' attitudes and beliefs presume that it will result in a change of instructional practice and pedagogy leading to the improvement of student learning.

Evaluations must look at how to better understand the influence of professional development on teachers and document its impact on student learning. Guskey (2000) suggests a model for evaluating professional development. The model includes five levels of gathering information about professional development and it is hierarchically arranged from simple to complex. Champion (2003) suggests that evaluations need to be designed around what participants are actually learning and not just their impressions, reactions and opinions in order to determine the impact on student achievement.

The purpose of this study was to determine the impact of professional development using Guskey's (2000, 2002) models of teacher change and evaluating professional development in eleven public schools within two selected school districts based on the following six criteria:

1. participant satisfaction
2. participant learning
3. the organization's support and change
4. change in teacher knowledge, skills, and instructional pedagogy
5. teacher perception of student learning
6. changes in attitudes and beliefs of teachers

Other school variables including: professional development process, professional development format, and professional development content were also included in this evaluation of staff development.

Survey research methodology was used to conduct an evaluation of professional development in K-12 public schools. The survey was designed, based on the literature, to include Guskey's five critical levels of professional development evaluation and the model of teacher change. Content and face validity was established through a jury of experts in the field of education and professional development.

Six hundred fifty surveys were distributed to K-12 public school teachers. Two hundred five teachers, representing eleven schools, volunteered to participate in the research study and returned a completed survey by mail to the researcher. The response rate of the mail-in survey was 32%. The variables from the survey were coded and entered into the SPSS computer program. Descriptive and

inferential statistical analyses were conducted to interpret the findings.

### Conclusions and Summary of Findings

Findings are reported in the order of each research question operationalizing the purpose of the study and conclusions are based on the theoretical framework of the study. Recommendations are made in the following section.

#### *Research Question # 1*

1. What is the nature of the professional development process in the participating districts?
  - a. Are teachers aware of the goals of the district's professional development plan?
  - b. Is the professional development process linked to overall school improvement and student achievement?
  - c. Is professional development linked to the teacher evaluation process?
  - d. When is professional development offered to teachers?

Sixty-eight percent of the teachers in the survey indicated that they were aware of the goals of their districts' professional development plan. However, 31.2% of the respondents indicated that they were not aware of the goals of the professional development plan in their

district. These results support the professional literature regarding the importance of setting clear goals and planning professional development that aligns to the needs of the school district. Richardson (1997), suggests that schools need a shared vision for success; they also need a mission consisting of the steps that need to be taken to achieve that vision. Additionally, Richardson states that the school improvement plan is the foundation of the school district defining the vision, mission and goals for comprehensive school reform. According to Sparks and Hirsh (1997) and the National Staff Development Council (2001), all stakeholders should be aware of the district's vision for professional development and goals should be clearly defined and communicated to all of the people involved. The goals of the professional development plan should be aligned to the needs of the district in order to make systemic change (Sparks & Hirsh, 1997).

Additionally, the professional literature suggests that the district's professional development plan should be linked to student achievement and data collection and evaluation should be part of the plan (Cook, 1997; Guskey & Sparks, 1991; Killion, 2002; and Guskey, 2002). The data from this study supports this. An overwhelming 73% of the respondents in this study indicated that their district's professional development plan is linked to student achievement. The remaining 24% (almost one quarter) were not sure and 3% said no.

Professional development should be linked to the teacher evaluation process. "One of the most difficult challenges is not designing a new system of faculty appraisal, nor to refine an old one, but to sustain a climate in which effective evaluation serves to encourage and focus teachers on their professional growth and continuous improvement" (Beall, 1999). According to Guskey (2000), teacher observation and conferencing is one way to assess the use of new knowledge and skills gained from professional development experiences. The teacher professional performance review needs to link to the their personalized professional development plan and the overall district professional development plan. Supervisors should be able to observe a teacher utilizing the new knowledge and skills that they gained as a result of their own professional growth. However, this process is challenging and it is only recently, with the focus on accountability and an increase in student gains, that it has gained importance (Guskey 2000; Elmore, 2002). The data from the surveys support this. In this study, 43.9% of the participants responded affirmatively that their district's professional development plan is linked to the teacher evaluation process. Twenty percent said that it was not and 35.6% were not sure. If a teacher is not sure that their professional growth is linked to their job evaluation then it seems that the goals of the plan are not clear which explains why 31.2% of the teachers responded that



they were not aware of the goals of their district's professional development plan as stated above.

Participants in this study indicated that there were a variety of times that they experienced professional development opportunities. Since district conference days are built into the calendar for staff development purposes, it is not surprising that 90.2% indicated that they participated in professional development during conference days. One-shot workshops during a conference day is not an effective model for professional development (Lieberman, 1995; Darling Hammond, 1998). According to the research of Darling-Hammond (1996, 1998), Miller (1998), Sparks & Loucks-Horsely (1989), Sparks & Hirsh (2000), Guskey (1995), Hawley and Valli (1996), Ferraro (2000), Little (1993), and Abdal-Haqg (1991, 1996), professional development is most effective when it is job embedded, based on the goals of the school district and conducted during the school day. Only a little more than half of the teachers in this study (54.6%) said that they were involved with professional development during the school day.

#### *Research Question # 2*

2. What is the nature of the professional development format in the participating districts?

a. What types of professional development activities and strategies are being implemented?

The research of Abdal-Haqg (1996) and Ferraro (2000) suggest that effective professional development consists of inquiry, action research, reflection, collaboration and mentoring. These categories were the ones least participated in by the respondents in this study. Most of the teachers who responded to this question on the survey indicated that they participated in workshop training sessions (91.2%) and clinical observation and assessment experiences by a supervisor (92.2%).

#### *Research Question # 3*

3. What is the nature of the professional development content in the participating districts?
  - a. Who makes decisions about what professional development topics are offered to teachers in the district?
  - b. What topics are offered?

This study found that nearly 70% of the respondents indicated that district level administrators were making decisions regarding professional development in the school district. According to Sparks and Hirsh (1997) and the National Staff Development Council (2001), effective professional development plans are created by all members of the school community including teachers, administrators, parents, and community members. Only 26.3% of the respondents of the survey indicated that decisions

regarding professional development were made by a combination of people; as the research would suggest.

The content of professional development in this study included a variety of topics. Technology integration was the most popular. The infusion of technology into the curriculum has become essential in today's classroom. More and better technology has become available in schools and the internet has become a part of daily living for many people. Teachers have a need to learn as much as possible about effectively utilizing technology within the classroom curriculum. Curriculum development, reading and early literacy, math instruction, and differentiation were the next most popular. With increased accountability in math and English language arts as well as meeting the needs of all learners, it is not surprising that these topics were most popular. The data suggests that even though many teachers were not aware of the goals of the district's professional development plan and even though many times district administrators were making decisions about professional development (see discussion above), it seems that the schools involved in this study were somewhat focused on the content of professional development offered to teachers. There were only thirteen main categories of professional development content which indicates that school districts were narrowing the professional development content opportunities for teachers. There could have been many more areas available for teacher staff

development; which would mean that efforts were fragmented and not focused.

*Research Question # 4*

4. What relationship exists between the change in teachers' attitudes and beliefs about teaching and learning and their perceptions of professional development at each of the five levels of evaluation?

The data indicated that there was a significant positive correlation between Guskey's Model of Teacher Change (2000) and the way respondents evaluated their professional development experiences. The correlation ranged from .244 to .471 on the five levels of evaluation with Level 1 (Participant's Reactions) having the lowest correlation ( $R=.244$ ) and Level 4 (Use of new knowledge and skills) having the highest correlation ( $R=.471$ ). Much of the literature and research states that the goal of professional development is to provide opportunities for teachers to learn and grow within the profession, thereby making an impact on student learning. This study found that there was a low positive relationship (.453) between the change in teachers' attitudes and beliefs about teaching and learning and their perceptions of professional development as it relates to student learning outcomes. The correlation table (Table 18) indicates that the lowest correlations exist when comparing relationships between

Change in Attitudes and Beliefs and the five levels of evaluation. Correlations are stronger among all other variables. The strongest correlation ( $R=.740$ ,  $p<.05$ ) exists between how participants evaluated their use of new knowledge and skills (Level 4) and professional development's impact on student learning outcomes (Level 5). This strong correlation indicates that teachers felt that the new knowledge and skills they learned as a result of professional development had an impact on student achievement. Comparing this to the low correlation between attitudes about teaching and student achievement ( $R=.453$ ,  $p<.05$ ), it seems that teachers do not overwhelmingly feel that professional development changes their attitudes and beliefs about teaching and/or learning. This data does not support Guskey's (2000) theoretical model of teacher change.

#### *Research Question # 5*

5. How do teachers who have experienced research-based effective professional development process, content and format evaluate their experiences of professional development at each of the five levels and the teacher change process?

The data from the results of the t-test (Table 19) regarding effective professional development indicates that there was a statistically significant difference in mean

scores at each level of evaluation between participants in group 2 who were involved in the most effective professional development activities and those in group 1 who were also involved in effective professional development activities but to a lesser degree.

Effective professional development in this study is characterized as being: linked to district goals and school improvement; aligned with the teacher evaluation process; is offered during school day; consists of individual professional development plans, guided practice, reflection, mentoring, district curriculum development, peer study groups, inquiry and action research, long term courses within the district with in-class support; and its content is determined by a combination of school community stakeholders. "These approaches shift from old models of 'teacher training' or 'inservicing' to a model in which teachers confront research and theory directly, are greatly engaged in evaluating their practice, and use their colleagues for mutual assistance." (Darling-Hammond, 1998, p. 6)

The teachers in group 2 evaluated their experiences more positively than the teachers in group 1. This proves that what the professional literature says about effective professional development process, format and content makes a difference in the way teachers evaluate their experiences regarding initial satisfaction, acquisition of new knowledge and skills, the support of the organization, the

degree and quality of implementation, student learning outcomes, and the change in attitudes and beliefs about teaching and learning.

The greatest difference in mean scores between the two groups was in their evaluation of organization support and change at critical level 3 ( $t=6.559$ ,  $p<.05$ ). The questions had to do with the impact of professional development on the organization; how it affected climate and culture; and the support of the Board of Education, administrators, colleagues and the public. This means that the teachers who had the most effective professional development experiences positively evaluated the organization's support and change.

Another area worth noting is the significant difference in mean scores relating to the change in attitudes and beliefs of the participants ( $t=2.942$ ,  $p<.05$ ). This means that the teachers who were involved in highly effective professional development were more likely to strongly agree with statements that support a change in their attitudes and beliefs about teaching and learning than the teachers who participated in low end effective professional development. This substantiates Guskey's (2000) Model of Teacher Change theory and implies that systemic change in instructional pedagogy is possible through highly effective professional development experiences.

The mean difference in scores from group 2 compared with group 1 in critical evaluation level 5 of Student

Learning Outcomes was substantially significant ( $t=4.852$ ,  $p<.05$ ). This area is one that is most important to evaluators of professional development programs. The questions on the survey in this section focused on the impact of professional development on students; perceptions of increase in student achievement on classroom, district and state assessments; student engagement and involvement in their own learning; classroom management and student behavior; and student confidence as learners. Again, the teachers who participated in the most effective professional development activities evaluated their experiences more positively than those who participated in less effective activities. This, too, is in support of the research and professional literature in the field.

#### *Research Question # 6*

6. How do teachers who have experienced ineffective professional development process, content and format evaluate their experiences of professional development at each of the five levels and the teacher change process?

The data from the results of the t-test (Table 20) regarding ineffective professional development indicate that there was a statistically significant difference in mean scores at each level of evaluation between participants in group 2 who were involved in what the



research suggests is ineffective professional development and those in group 1 who were also involved in ineffective professional development activities but to a greater degree of ineffectiveness.

Characteristics of ineffective professional development are listed in Table 17. Ineffective professional development is characterized as being: unfocused and fragmented; not aligned to school improvement and the teacher evaluation process; offered after school, during the lunch hour, and/or on weekends; presented as clinical classroom observations, presentations or demonstrations, training workshops, going to conferences, and/or participating in expert lectures or motivational speeches; and the content is decided upon by teachers only.

The teachers in group 2 evaluated professional development at each of the five critical levels more positively than the teachers in group 1. This means that the participants who were involved in the least ineffective activities felt that professional development had a more positive impact on their initial satisfaction, acquisition of new knowledge and skills, organizational change, the implementation of new learning, student achievement and the teacher change process, than those who participated in the most ineffective model. These findings substantiate the literature regarding the impact of effective professional development.

The greatest mean difference between the two groups was

in the Change in Attitudes and Beliefs evaluation level ( $t=2.251$ ,  $p<.05$ ). The questions in this category focused on the criteria necessary for affective changes as a result of professional development. Respondents in group 2 agreed more strongly with the statements in this section substantiating Guskey's Model of Teacher Change once again. Changes in attitudes and beliefs about teaching and learning are more likely if teachers participate in effective professional development; in this case, the least ineffective activities.

The Student Learning Outcomes level was another section with a significant difference in mean scores ( $t=3.189$ ,  $p<.05$ ). The participants in group 2 indicated that they agreed more strongly with statements regarding the impact of professional development on student achievement than the participants in group 1. The more ineffective the professional development the less teachers agree with it's impact on student learning.

Killion (2002a) supports this notion.

Increasingly policy makers, staff development directors, and evaluators want to examine staff development's impact on student achievement.

That will enable them to make better decisions about staff development based on what is effective, how to strengthen what is not, and how to measure the results of their efforts (Killion, 2002, p. 1).

The first level of evaluation regarding participant reactions is the lowest level of evaluation and the most common. Often, evaluators do not go beyond this basic level (Guskey, 2000). The mean difference between teachers in group 2 and those in group 1 was statistically significant at this level ( $t=4.524$ ,  $p<.05$ ). The teachers who participated in the most ineffective professional development (group 1) indicated that they agreed least with statements such as: meets my needs; is non-threatening; is time well spent; and is generally a positive experience. This is not surprising and the research of Guskey (2000) supports this conclusion.

We know, for example, that many of the professional development experiences in which educators engage are meaningless and wasteful. Many are not well planned or supported. Others focus on ideas that are faddish and not based on well-documented research evidence. Still others present ideas that may be valuable but are impractical to implement because of insufficient resources or a lack of structural support (Guskey, 2000, p. 4).

#### Recommendations

This investigation studied eleven school districts in New York State. Although the results may not be generalizable to all school districts, there are many

implications for all educators and staff developers. The practical recommendations listed below may apply to all school personnel interested in evaluating the impact of professional development. Based on the findings of this research, the following recommendations are made:

1. Some teachers in this study indicated that they knew about their district's professional development plan but many did not. More and better communication is necessary. The goals of the district's professional development plan as well as the vision and mission for academic achievement must be communicated on an on-going basis to all stakeholders in the school community. Richardson (2000), supports this notion and states that publishing and publicizing the school district's vision statement is an important way to communicate with stakeholders. It also has to become part of everyday dialogue in order for it to become embedded in the ethos of the school community.
2. Almost one-quarter of the teachers in this study were not even sure if the district's professional development plan was linked to student achievement. Again, the recommendation is to communicate the goals of the district's plan for professional development to every person in the school community, especially the teachers. Professional development should be aligned to the needs of the school district and designed to have an impact on student achievement. Staff

development leaders must be clear about their staff development goals and must remain focused on the impact on student learning outcomes. The National Staff Development Council believes that the primary purpose for staff development is high levels of learning and performance for all students and staff. Consequently, the vast majority of professional learning should be directed at changes in leadership and teaching practices that improve student achievement (Sparks, 2002). The recommendation is to examine the district's plan for professional development to ensure that it is linked to student learning outcomes.

3. Almost 36% of the teachers in this study indicated that they were not sure if professional development is linked to the teacher evaluation process in their school district. Twenty-one percent indicated that it was not. The research indicates that effective professional development is linked to teacher evaluation. According to Beall (1999), faculty growth and appraisal are two sides of the same coin and a strong culture of constructive evaluation can enrich the work of the educator. Combining professional development with appraisal should help teachers assess and improve the quality of their work in support of their students' learning. If a teacher is not sure that their professional growth is linked to their job

evaluation, then the criteria for annual professional performance reviews are not clear to the teacher or to the supervisor. The recommendation is to examine the district's professional development plan and to link it to the teacher evaluation process. If this has already been accomplished, then open communication regarding how this gets done is imperative.

Communication and clear objectives for professional development connections to performance evaluations are necessary.

4. Respondents indicated that professional development was conducted most frequently on conference days (90.2%) and before or after school (62.9%). The literature on professional development suggests that professional development should be job-embedded, take place primarily in the school, on-going, and should be conducted during the school day. This study found that only 54.6% of the teachers indicated that they participated in professional development opportunities during the school day. The recommendation is to provide time during the day for professional growth that is non-threatening, sustained and systematic.
5. Teachers in this investigation responded most frequently that they participated in professional development training sessions. This includes presentations, demonstrations, workshops, expert lectures or conferences. The literature suggests that

this is the least effective format for professional development. Inquiry, action research, collaboration and reflection are the most effective, yet many schools neglect to do this. A long term course taught within the school district with in-class follow up and support is an effective model, but only 13.2% of the respondents were involved with this model. The recommendation is to refine the plan for professional development format in the school district. It should include a research-based model of job-embedded, sustained, and systemic professional development. The district's professional development plan should include ways for teachers to participate in professional development during the school day in order to make it part of the school's ethos of life long learning.

6. Ideally, professional development decision-making and planning should be done by a committee of all stakeholders including teachers, administrators, union representatives, and parents. This committee should be a sub-set of the district comprehensive planning committee. This would ensure that professional development is aligned to the needs and goals of the district as well as the teacher evaluation process. The participants in this study indicated that district administrators were making decisions about professional development most frequently and building

administrators were the next most frequent group of decision-makers. Decisions about professional development content should be made collaboratively, therefore, the recommendation is to include teachers and other stakeholders in the planning, design and implementation of professional development content. Hirsh (2003) confirms the importance of including stakeholders in designing professional development.

Involving more persons in developing the plan will mean more discussion about the assumptions that lead to selected activities and the development of a consensus among all groups. In addition, more involvement means more fidelity to the plan and more willingness to attribute the final results to the inputs (Hirsh, 2003, p.1).

7. The data from this research suggests that, even though many teachers were not aware of the goals of the district's professional development plan and district administrators were making decisions about content, it seems that the schools were somewhat focused on the professional development content offered to teachers. It is important when seeking to improve schools that professional development activities remain focused on the goals of the district (DuFour, 2003). There were only thirteen main categories of professional development content that teachers were involved in



within this study. This indicates that the professional development efforts were not fragmented but were focused on a limited set of goals. Technology, curriculum development, reading, math, and differentiating instruction were the top five areas (see Table 9). The recommendation is to compare the district's professional development plan with the goals of the comprehensive district plan to make sure that the professional development content that is being offered to teachers matches the needs of the district. Professional development efforts should be focused and resources should be aligned to the goals set forth by the district's plan.

8. Guskey's Model of Teacher Change suggests that once teachers gain new knowledge and skills, implement their new knowledge in the classroom and experience an increase in student achievement they will change their attitudes and beliefs about teaching and learning. This study found that there was a statistically significant correlation between teachers' attitudes and beliefs about teaching and their experiences with professional development at each of the five levels of evaluation. The magnitude of the correlation was low indicating that teachers do not agree that professional development changes their attitudes and beliefs about teaching and/or learning. Therefore, the recommendation is to align professional

development efforts with the teacher evaluation process to ensure that the new knowledge and skills are being implemented in the classroom. Additional in-class support, following or in conjunction with the professional development experience, in order to enhance teaching strategies and instructional pedagogy is recommended for teachers as well.

9. The results of this investigation indicate that implementing a highly effective professional development program in a school district is essential for organizational culture change, sustained change in teacher attitudes and beliefs of instructional pedagogy and an increase in student learning outcomes. The recommendation is to examine the current district professional development process, format and content in light of the research-based characteristics of highly effective professional development listed in Table 16 of this document. Consider employing the strategies of highly effective professional development outlined in Table 16.
10. Guskey (2002) suggests that school administrators and decision makers take the time to evaluate the impact of professional development. Many staff development plans and initiatives are implemented without ever knowing how effective it's been for the teacher and the students. Therefore, another recommendation is to build an evaluation plan into the district professional

development plan. Guskey suggests that higher levels of evaluation are necessary; not just low level evaluations of participants' reactions. Killion (2002), in *Assessing Impact: Evaluating Staff Development*, suggests that we learn from our successes as well as our failures and benefit if we use the knowledge gained from past practice to design new staff development initiatives. "If we accept the challenge of examining our own practices with rigor and objectivity, we will increase our capacity to design and implement successful staff development programs and to construct a deeper understanding of effective staff development through evaluation." (Killion, 2002, p. 136). Evaluation of professional development should be built into the plan from the beginning. It should not be an afterthought (Champion, 2002). Consider making this part of school district policy.

#### Implications for Policy and Practice

The results of this study have broad based implications for other school districts' professional development policy and practice. One of the recommendations listed above suggests formal and systematic evaluation of the district's professional development plan. It should be linked to the overall comprehensive district plan and should align with the teacher evaluation process. The evaluation should include both formative and summative methods. Data should

be gathered at all critical levels of evaluation.

Student learning is directly influenced by teacher professional development. The instructional practices of teachers have an impact on the performance of students. It is, therefore, imperative that school districts plan to evaluate their professional development efforts as indicated above.

Professional development planning and effective implementation require the support of the organization. The community, parents and Board of Education need to be supportive of the professional development initiatives in the school district in order for systemic and long-term transformational change to occur. Boards of Education may consider extending the school day, approving more time and extra pay for professional learning in the teaching contract, and allowing additional time in the school calendar for professional days. All of these policy considerations will have financial implications for the school district. Parents and community members should be informed of teacher professional growth efforts of the school district and the effect this could have on the school budget as well as on the academic achievement of the students.

### Limitations of the Study and Recommendations/Implications for Future Research

1. As the literature indicates, research studies examining professional development and student achievement are infrequent. There is a need for further research on the impact of professional development on student achievement based on the new reform efforts of the No Child Left Behind legislation and the standards movement.
2. This research study determined the characteristics of effective and ineffective professional development based on the literature in the field. The examination of literature for this study was expansive. Some of the literature cited was based on empirical studies and some was not. A recommendation for future research is to determine the characteristics of effective and ineffective professional development based on the literature but to discriminate between empirical and non-empirical evidence of effectiveness.
3. This study was conducted in only two school districts within a particular geographic area. This study needs be replicated to determine if the results would be the same in another investigation with a larger population and different demographics.
4. This study evaluated teachers' experiences with professional development as a whole group of

respondents. The results of the study were not examined by demographics such as grade level, years of teaching experience or discipline. Other future research may include an examination of the kinds of professional development that meets the specific needs of teachers at various grade levels, experience levels and/or subject or content areas.

5. Teachers in this study indicated that feedback from their supervisor was not very important to them. Often, the feedback that teachers receive from their supervisors is not meaningful. An effective teacher evaluation process is aligned with setting professional learning goals and the professional development efforts of the school district. Another study could examine teachers' perceptions of professional development in light of the teacher evaluation process.

## References

- Abdal-Haqq, I. (1989). *The influence of reform on inservice teacher education*. Syracuse, NY: ERIC Digest. (ERIC Document Reproduction Service No. ED322147)
- Abdal-Haqq, I. (1991). *Professional development schools and educational reform*. ERIC Digest. Syracuse, NY: (ERIC Document Reproduction Service No. ED335357).
- Abdal-Haqq, I. (1996). *Making time for teacher professional development*. Syracuse, NY: ERIC Digest (ERIC Document Reproduction Service No. ED400259).
- Beall, J. (1999). On evaluation and professional development. *Independent School*, 59(1), 72.
- Bull, B. (1998). *ATE newsletter*, 32(6), 4.
- Champion, R. (2002). Taking measure: Map out evaluation goals. *Journal of Staff Development*, Fall.
- Champion, R. (2003). Taking measure: The real measure of a professional development program's effectiveness lies in what participants learn. *Journal of Staff Development*, 24(1).
- Cohen, D., & Hill, H. for the National Staff Development Council (1998). California study links student learning to teacher learning. *Results*, April. Retrieved April 20, 2002 from the World Wide Web:  
<http://www.nsdc.org/library/results/4-98lead.html>



- Cook, C. (1997). *Critical Issue: Evaluating professional growth and development*. Retrieved March 15, 2002 from the World Wide Web:  
<http://www.ncrel.org/sdrs/areas/issues/educatrs/profdevl/pd500.htm>
- Cook, C., & Fine, C. (1996). *Critical Issue: Realizing new learning for all students through professional development*. Retrieved May 20, 2002 from the World Wide Web:  
<http://www.ncrel.org/sdrs/areas/issues/educatrs/profdevl/pd200.htm>
- Darling-Hammond, L. (1996). *What matters most: Teaching for America's future*. National Commission on Teaching and America's Future.
- Darling-Hammond, L. (1998). Teacher learning that supports student learning. *Educational Leadership*, 55(5), 6-11.
- Dilworth, M.E. & Imig, D.G. (1995). Reconceptualizing Professional Teacher Development. *The ERIC Review*, 3(3), 5-11.
- DuFour, R. (2003). Leading edge: Procrastination can sink even the best school improvement plan. *Journal of Staff Development*, 24(1).
- Elmore, R. (2002). The price of accountability. *Results*, November, 1.

- Ferraro, J. M. (2000). *Reflective practice and professional development*. Washington, DC: ERIC Clearinghouse on Teaching and Teacher Education. (ERIC Document Reproduction Service ED 449120).
- Guskey, T. R. (1982). The effects of staff development on teachers' perceptions about effective teaching. *Journal of Educational Research*, 78(6), 378-381.
- Guskey, T. R. (1995). Results oriented professional development: In search of an optimal mix of effective practice. *Journal of Staff Development*, 15(4), 42-50. Retrieved July 17, 2001 from the World Wide Web: [http://www.ncrel.org/sdrs/areas/rpl\\_esys/pdlitrev.htm](http://www.ncrel.org/sdrs/areas/rpl_esys/pdlitrev.htm)
- Guskey, T. R. (1997). Research needs to link professional development and student learning. *Journal of Staff Development*, 18(2). Retrieved November 25, 2001 from the World Wide Web: <http://www.nsdc.org/library/jsd/jsdgusk.html>
- Guskey, T. R. (1998). The age of our accountability: Evaluations must become an integral part of staff development. *Journal of Staff Development*, 19(4). Retrieved August 29, 2001 from the World Wide Web: <http://nsdc.org/library/jsd/guskey194.html>
- Guskey, T. R. (2000). *Evaluating professional development*. Thousand Oaks, CA: Corwin Press, Inc.
- Guskey, T. R. (2002). Does it make a difference? Evaluating professional development. *Educational Leadership*, 59(6), 45-51.

- Guskey, T. R. & Sparks, D. (1991). What to consider when evaluating staff development. *Educational Leadership*, 49(3), 73-76.
- Guskey, T. R., & Sparks, D. (1996). Exploring the relationship between staff development and improvements in student learning. *Journal of Staff Development*, 17(4). Retrieved August 29, 2001 from the World Wide Web: [http://nsdc.org/library/jds/f\\_guskey.html](http://nsdc.org/library/jds/f_guskey.html)
- Harkreader, S., & Weathersby, J. (1998). *Staff development and student achievement: Making the connection in Georgia schools*. Council for School Performance: Georgia State University. Retrieved May 12, 2002 from the World Wide Web: [http://arcweb.gsu.edu/csp/csp\\_staffdevap.htm](http://arcweb.gsu.edu/csp/csp_staffdevap.htm)
- Hawley, W. & Valli, L. (1996). *The essentials of effective professional development: A new consensus*. Paper presented to the AERA Invitational Conference on Teacher Development and School Reform.
- Hertert, L. (1997). *Investing in teacher professional development: A look at 16 school districts*. ERIC Digest Colorado. (ERIC, ED416201)
- Hirsh, S. (2003). Make clear your theory of change. *Results*, February. Retrieved February 23, 2003 from the World Wide Web: <http://www.nsdc.org/library/results/res2-03hirs.html>
- Jacobson, C., & Lehrer, R. (2000). Teacher appropriation and student learning of geometry through design. *Journal for Research in Mathematics Education*, 31(1), 71.

- Killion, J. (2002a). For good measure: How to assess staff development's impact. *Results*, 1-6.
- Killion, J. (2002b). *Assessing impact: Evaluating staff development*. Oxford, OH: National Staff Development Council.
- Lashway, L. (1998). *Creating a learning organization*. ERIC Clearinghouse on Educational Management. Oregon. ERIC Digest (ERIC, ED420897)
- Lewis, A. (1998). A new consensus emerges on the characteristics of good professional development. *Harvard Education Letter Focus Series*, 4, 12-15.
- Lieberman, A. (1995). Practices that support teacher development. *Phi Delta Kappan*, 76(8).
- Little, J. (1993). Teachers' professional development in a climate of educational reform. *Educational Evaluation and Policy Analysis*, 15(2).
- Lohman, M.C., & Woolf, N.H. (1998). Toward a culture of teacher learning in the public schools: A human resource development perspective. *Teaching and Change*, 5(3/4), 276-293.
- Miller, E. (1998). The old model of staff development survives in a world where everything else has changed. *Harvard Education Letter Focus Series*, 4, 1-3.
- National Staff Development Council (2001). *Standards for staff development* (Rev. ed.). Oxford, OH: National Staff Development Council.

- Renyi, J. (1998). Building learning into the teaching job. *Educational Leadership*, 55(5), 70-74.
- Richardson, J. (1997). If you can envision it, you can create it. *Tools for Schools*, September. Retrieved February 23, 2003 from the World Wide Web:  
<http://www.nsd.org/library/tools/tools9-97rich2.html>
- Richardson, J. (2000). Achieving your vision depends on follow-through. *Tools for Schools*, August/September.
- Richardson, J. (2002). Leave no teacher behind. *Results*, September.
- Sparks, D. (1998). Teacher expertise linked to student learning. *Results*, April. Retrieved April 20, 2002 from the World Wide Web:  
<http://www.nsd.org/library/results/4-98sparks.html>
- Sparks, D. (2002). Wishful thinking and other barriers to improvement. *Results*, March.
- Sparks, D. & Hirsh, S. (1997). *A new vision for staff development*. Alexandria, VI: ASCD.
- Sparks, D., & Hirsh, S. (2000). *A National Plan for Improving Professional Development* Retrieved March 18, 2002 from the World Wide Web:  
<http://www.nsd.org/library/NSDCPlan.html>
- Sparks, D., & Loucks-Hoursley, S. (1989). Five models of staff development. *Journal of Staff Development*, 10(4). Retrieved July 9, 2001 from the World Wide Web:  
<http://nsd.org/library/jsd/sparks104.htm>

## Appendix A

### Survey Instrument and Cover Letter

June 3, 2002

Dear Colleague:

I am pursuing a doctorate degree in educational administration and supervision from Seton Hall University. My dissertation will focus on professional development. As a fellow educator, **I am requesting your participation** in this study. The superintendent has given me permission to conduct this investigation in your school district.

**Background Information:**

Professional development in the field of education is considered to be a critical component of developing highly qualified and committed teachers. However, research suggests that the educational community, in general, has yet to demonstrate the true impact of professional development. This study will focus on the perceptions of teachers regarding the effectiveness of professional development at six critical levels. I realize that your schedule is a busy one and that your time is valuable, but I am certain that you would like to improve the quality and effectiveness of professional development and contribute to the sum of human knowledge on this topic.

**Procedures:**

If you agree to participate, please fill out the attached Professional Development Questionnaire and return it to me via US Postal mail in the self addressed stamped envelope **no later than June 10, 2002**. Completing this survey should take you no longer than 15 minutes.

**Voluntary Nature of the Study:**

Your decision whether or not to participate will not affect your current or future relations with your school district or with Seton Hall University. If you decide to participate, simply return the completed survey.

**Anonymity:**

The survey is completely anonymous and no identifying information will be reported. In any sort of report that might be published, no information will be used that would make it possible to identify a subject.

**Data will be kept secure:**

The researcher will secure all information in a locked cabinet and only the researcher will have access to the records.

**Risks and Benefits:**

There are no risks to participating in the study and benefits may include the satisfaction that accompanies being involved in research that will attempt to narrow the gap that exists concerning the true impact of professional development.

The primary researcher in this study is Christine Lowden and her Seton Hall advisor is Dr. Mary Ruzicka (973) 275-2723. You may ask any questions or raise any concerns by contacting Christine Lowden at (listed my email address here)

This project has been reviewed and approved by the Seton Hall University Institutional Review Board for Human Subjects Research. The IRB believes that the research procedures adequately safeguard the subject's privacy, welfare, civil liberties, and rights. The Chairperson of the IRB may be reached at (973) 275-2974.

Thank you in advance for your cooperation.

Christine Lowden, Doctoral Candidate  
Seton Hall University



## Professional Development Questionnaire

Section 1**Please tell me about yourself:**

Total Number of Years Teaching Experience (including this year)

- ☐ 1-3    ☐ 4-9    ☐ 10-14    ☐ 15-19    ☐ 20-24    ☐ 25-29  
☐ 30+

Total Number of Years Teaching in this school district (including this year)

- ☐ 1-3    ☐ 4-9    ☐ 10-14    ☐ 15-19    ☐ 20-24    ☐ 25-29  
☐ 30+

Grade level Currently Teaching: (check all that apply)

- ☐ Pre K-2    ☐ 3-5    ☐ 6-8    ☐ 9-12

Subject or Content Area: \_\_\_\_\_

## Professional Development Process

1. *I am aware of the goals of my district's Professional Development Plan.*

- ☐ Yes  
☐ No

2. *My district's Professional Development Plan is linked to overall school improvement and increased student achievement.*

- ☐ Yes  
☐ No  
☐ Not sure

3. *My district's professional development plan is related to the teacher evaluation process.*

- ☐ Yes  
☐ No  
☐ Not sure

4. *Professional development in my district is offered: (check all that apply)*

- ☐ During the school day  
☐ Before and/or afterschool  
☐ On conference days  
☐ At the end of the school year (the week after school closes)  
☐ At the beginning of the school year (end of August or early Sept.)  
☐ During the summer  
☐ On my lunch hour  
☐ On weekends  
☐ In the evenings  
☐ Online  
☐ Other \_\_\_\_\_

5. *In which types of professional development activities have you participated? (check all that apply)*

**Individually guided staff development**

- ☐ **Individual Professional Development Plan** - learning is designed by the teacher, teacher determines his or her own goals and chooses the activities that will help accomplish the goals
- ☐ **Individual Professional Improvement Plan** - teacher has been advised that he/she has a weakness in particular area(s) and exercises an improvement plan in conjunction with an administrator or support person
- ☐ **Guided practice** - teacher meets with "experts" to learn new skills, instructional strategies and receives in-class guidance
- ☐ **Reflection** about teaching and learning

**Observation/Assessment**

- ☐ **Classroom observation and assessment** - evaluation by administrators (formal feedback)
- ☐ **Classroom observation by a fellow teacher** - peer coaching
- ☐ **Mentoring** - engaged in formal mentor program with trained mentor

**Involvement in a Development/Improvement Process**

- ☐ **Curriculum Development Days** - teachers learn as a result of being involved in the development, design and/or improvement of curriculum
- ☐ **School Improvement Committees** - teachers learn through participation on committees such as strategic planning or Comprehensive District Education Plan (CDEP)

**Training**

- ☐ **Presentations or Demonstrations** (1/2 day or 1 day)
- ☐ **Workshops or seminars** (1/2 day or 1 day)
- ☐ **Conferences**
- ☐ **Expert Lectures or Motivational Speeches**

**Inquiry**

- ☐ **Peer study groups** - teachers meet to discuss current research in education
- ☐ **Inquiry/Action Research** - teachers formulate questions, gather and analyze data and use their findings to advance instruction

**Courses**

- ☐ **Graduate courses**
- ☐ **Long term courses within the District** - (8-10 sessions or more) with in-class support. Follow-up, feedback and support in the classroom is provided to improve implementation of new instructional strategies
- ☐ **Long term courses within the District** (8-10 sessions or more) without in-class support, feedback or follow-up
- ☐ **Continuing Education or Adult Education Course (not for credit)**
- ☐ **Teacher Center Courses**
- ☐ **Boces Courses**

Please list any other types of professional development experiences you have had that are not mentioned on the previous page

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### **Professional Development Content**

6. *Who decides the content of professional development in your district?*

- ☐ District Level Administrators
- ☐ Building/School Level Administrators
- ☐ Grade Level or Department Chairperson
- ☐ Professional Development Committee
- ☐ Teachers
- ☐ Combination
- ☐ Other \_\_\_\_\_

7. *Please list the topics of the last 3 professional development opportunities offered to you by your school district in which you participated: (ie: technology, learning styles, brain research, differentiation)*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

### **Section 2**

Statement: Professional development in my school district:	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
8. Meets my needs					
9. Is non-threatening					
10. Is offered at a time convenient for me					
11. Is time well spent					
12. Is offered by instructors who are knowledgeable and effective					
13. Is generally a positive experience					

Statement: <b>Because of professional development, I have learned:</b>	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
14. Practical instructional strategies					
15. New knowledge and skills					
16. The theory behind the practice					
17. New concepts connected to prior knowledge					

Statement: <b>Professional development in my school district:</b>	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
18. Has a positive impact on the organization as a whole					
19. Has a positive impact on the culture and climate in my school					
20. Is often conducted during the school day					
21. Leads to in-service credit or a stipend					
22. Is recognized as being extremely important by the following:					
Board of Education					
District Administrators					
Building Administrators					
My Colleagues					
Myself					
Parents					

Statement : After I have participated in a professional development experience, I usually:	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
23. Go back and experiment or practice with new instructional strategies					
24. Implement/apply new instructional practices					
25. Become committed to new teaching strategies					
26. Note positive changes in my teaching					
27. Make long lasting changes in my teaching					

Statement: Generally, my professional development impacts my students in the following ways:	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
28. It makes a positive impact on my students' learning					
29. Student achievement increases					
30. Students are more engaged in learning					
31. Students are involved in their own learning					
32. Classroom management has improved					
33. Student achievement has risen on state or district assessments					
34. Student achievement has risen on teacher or classroom assessments					
35. Students' confidence as learners has improved					

Statement: As a result of professional development, my attitudes and beliefs about teaching and learning change when:	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
36. The experience was meaningful to me					
37. I learned practical instructional strategies					
38. My teaching becomes more effective					
39. I am more efficient or productive as a teacher					
40. I've enjoyed the experience					
41. I become empowered in new ways					
42. I have learned to meet the various needs of all of my students					
43. It has a positive impact on student behavior					
44. My students become more actively engaged in learning					
45. I can see a positive impact on student achievement					
46. It impacts my annual performance evaluations positively					
47. I receive positive feedback from my supervisor					
48. My efforts are recognized					
49. I feel proud of my accomplishments					
50. It connects to district needs and overall school improvement					

## Appendix B

Permission From Dr. L. Liguori to Adapt Survey

April 9, 2002

**Dr. Lori J. Liguori**

**School Psychologist**

**Stonington Public Schools**

Stonington Public Schools Old Mystic, CT  
Phone: 860-599-5696 x129 Email: [lliguori@stoningtonschools.org](mailto:lliguori@stoningtonschools.org)

Dear Christine:

I give permission to use questions contained in my dissertation survey for the intention of constructing your own survey for dissertation research purposes.

Good Luck!

Sincerely,

Lori J. Liguori, Ed. D., NCSP